

# LEGEND

- ① 48" I.D. Manhole Shaft Per MAG Std. Detail 420, Type "B" Top
- ② 30" Manhole Frame & Cover Per MAG Std. Detail 424
- ③ Grouted Adjusting Rings
- ④ Polypropylene Manhole Steps Per MAG Std. Detail 428, 12" Spacing Typical
- ⑤ Operator Nut
- ⑥ Wall Bracket
- ⑦ Packing Gland
- ⑧ 6" Extension
- ⑨ #4 Rebar 12" On Center Each Way 2" Clear Typical
- ⑩ Butterfly Valve
- ⑪ 3" Diameter Drain
- ⑫ 8 Cu. Ft. Gravel Sump
- ⑬ Adjustable Pipe Saddle Support
- ⑭ Rectangular Cut-Out In Manhole Shaft, Fill Space Between Shaft And Pipe With 1" Sheet Foam, Brick And Mortar

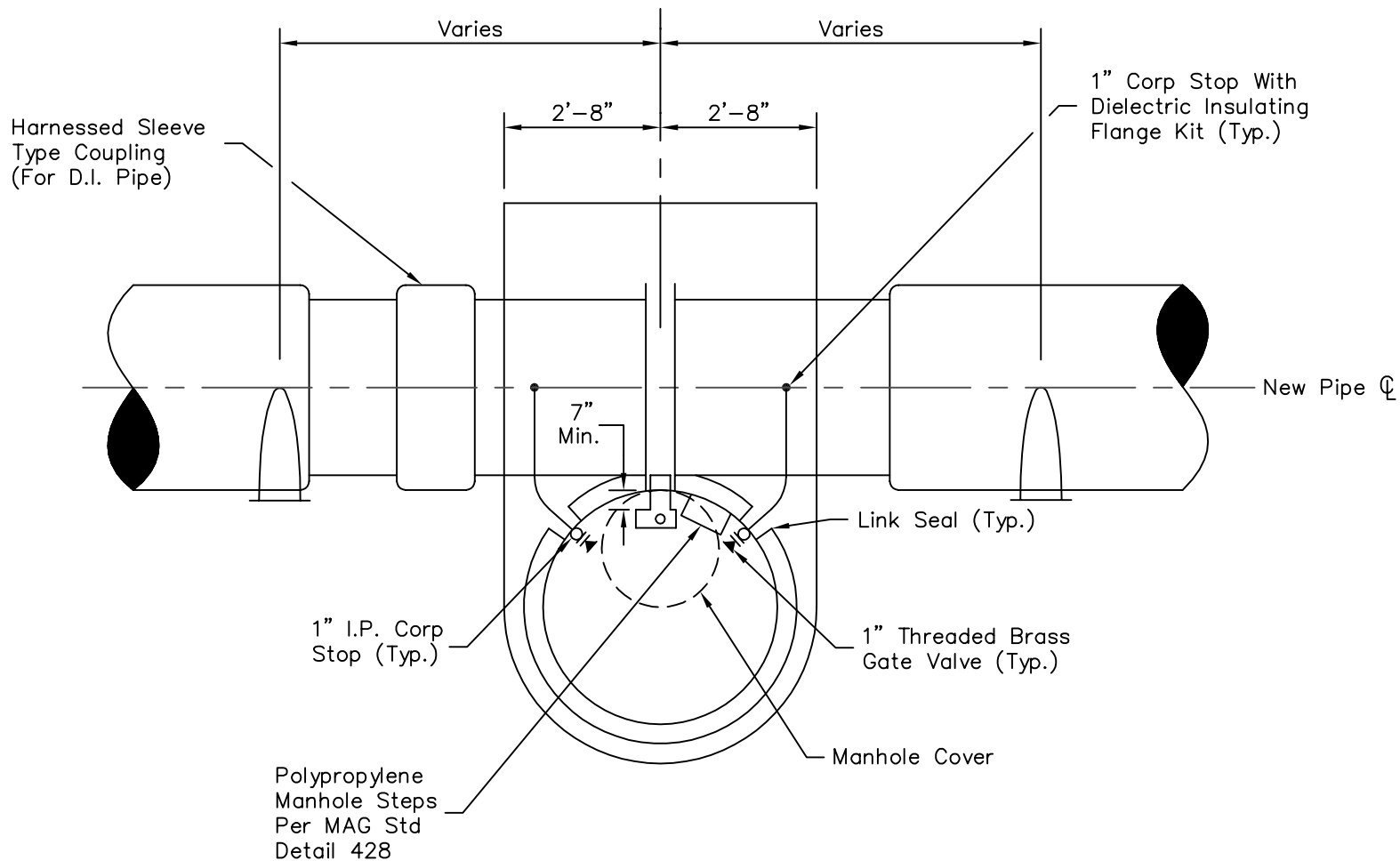
## SECTION

DETAIL NO. **2305-1** **City of Scottsdale**  
**Standard Details**

APPROVED BY: \_\_\_\_\_

**BUTTERFLY VALVE OPERATOR MANHOLE**

DETAIL NO. **2305-1**



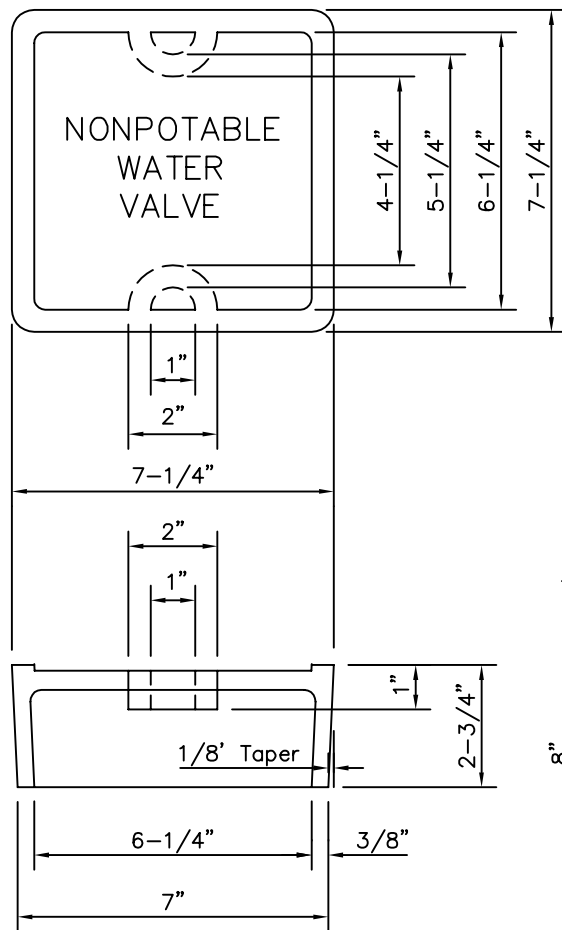
PLAN

DETAIL NO. **2305-2** **City of Scottsdale**  
**Standard Details**

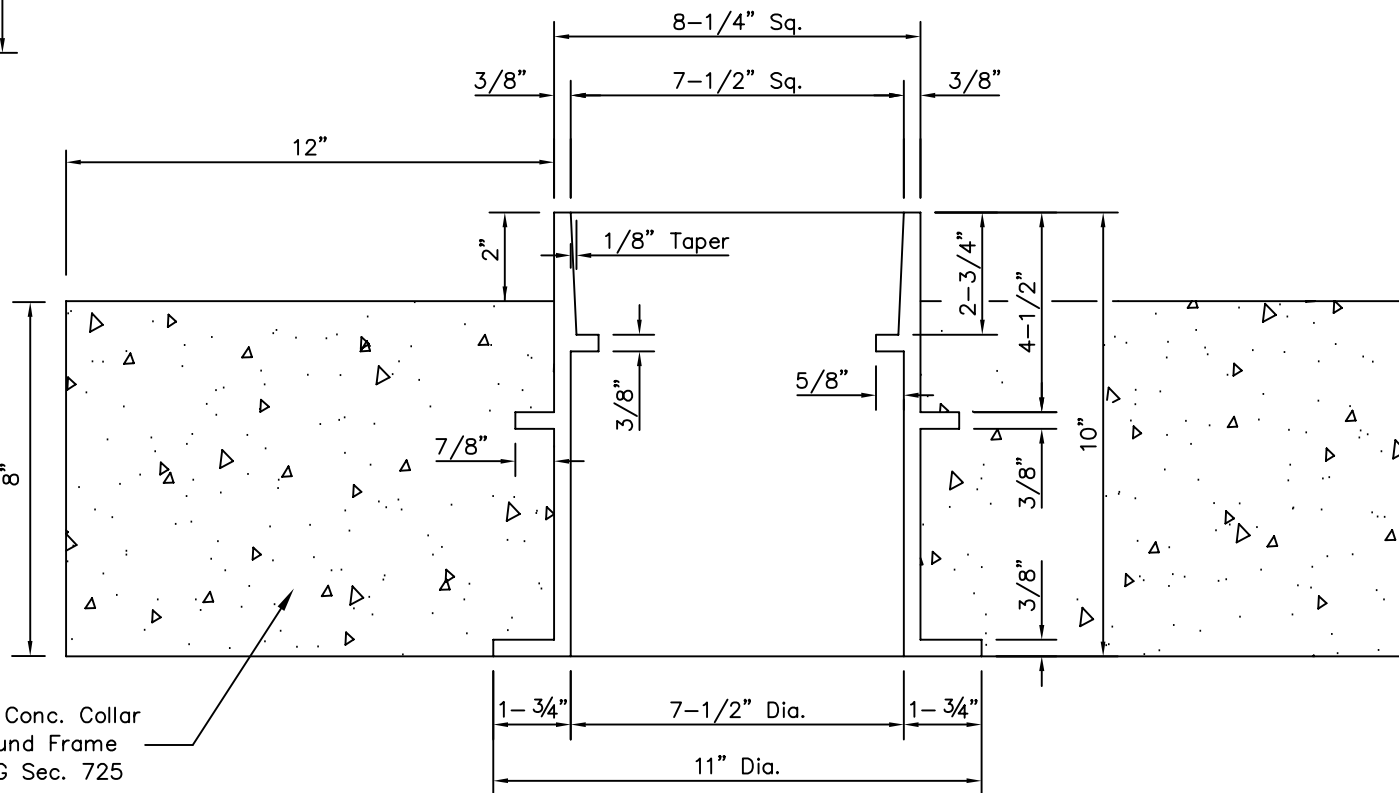
APPROVED BY:

**BUTTERFLY VALVE OPERATOR MANHOLE**

DETAIL NO. **2305-2**



Class 'B' Conc. Collar  
All Around Frame  
Per MAG Sec. 725



# NOTES

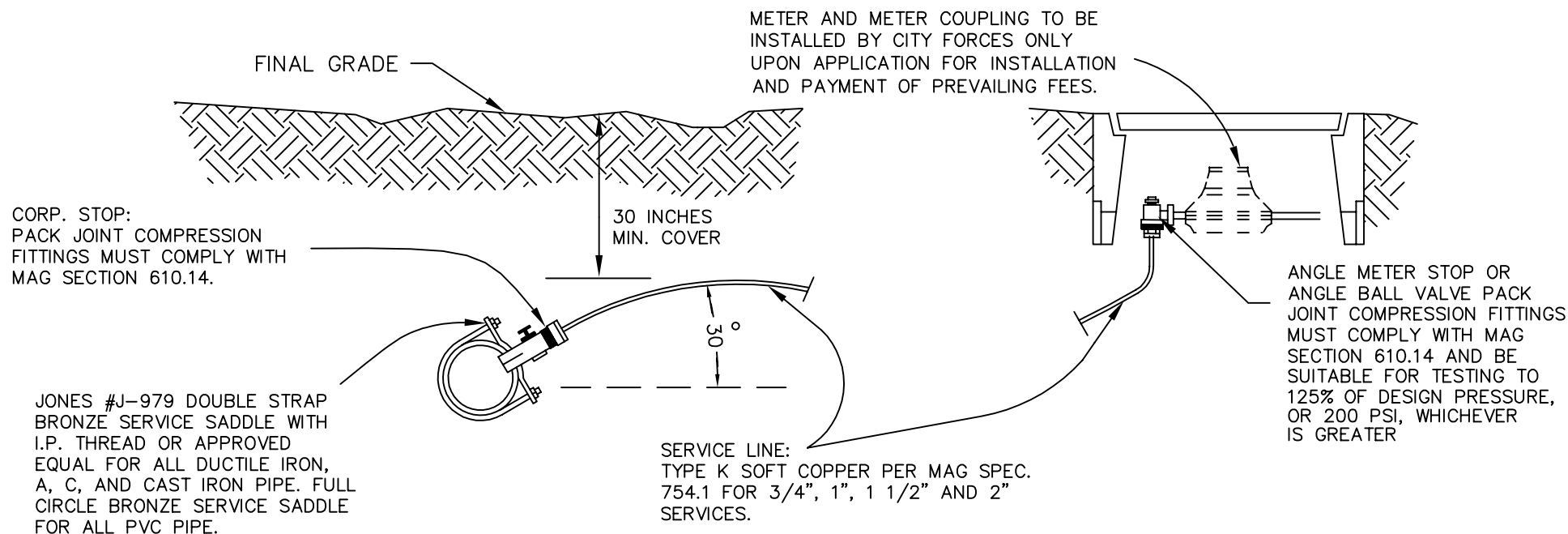
1. Round bottom for riser pipe, square top for cover.
2. All materials shall be cast iron per ASTM A48, Class 30B.
3. Nonpotable water valve box to be installed per M.A.G. Std. Detail 391.
4. The cast iron lid shall be marked "Nonpotable Water Valve" on the top side. Letters shall be 1" each and raised 1/8".

DETAIL NO. **2315** **City of Scottsdale**  
**Standard Details**

APPROVED BY: \_\_\_\_\_

**NONPOTABLE WATER VALVE BOX & COVER**

DETAIL NO. **2315**

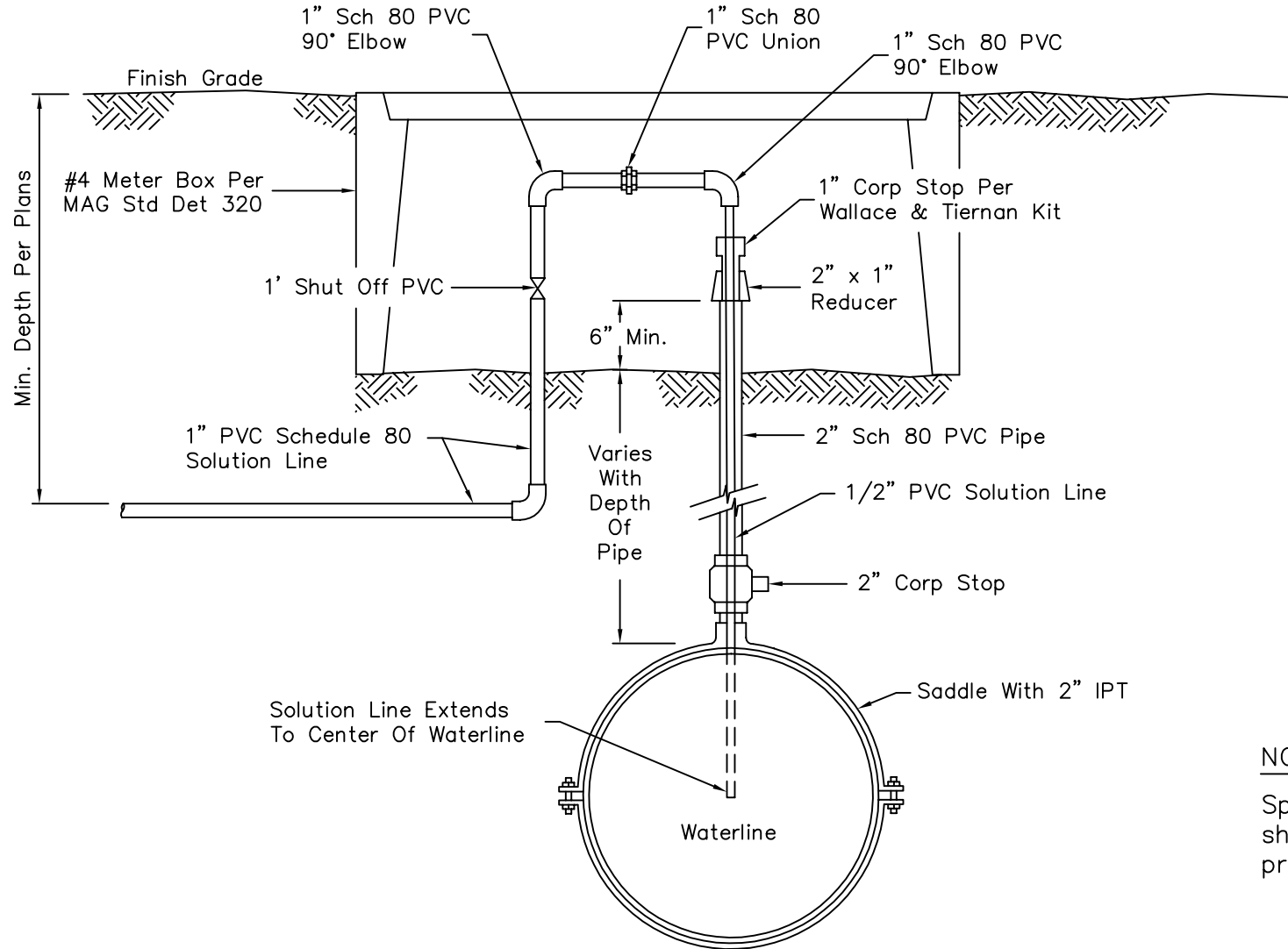


- NOTE:
1. All taps must be made using a service saddle.
  2. All service line sizes shall have the pack joint compression fittings for corp. stops and meter stops.
  3. Where a contractor is installing new water lines, he shall also install the water service connection. The installation shall include the service saddle, corp. stop, service pipe, appurtenant fittings, meter stop, concrete meter box and box cover, per M.A.G. Specifications.
  4. Copper service lines in the 3/4", 1", 1 1/2", and 2" sizes that cross streets will be one continuous piece. Only with the express written consent of Water & Wastewater Operations will joints be permitted under a road. When this occurs, pack joint fittings will be required; no soldered joints will be permitted.
  5. When all or part of a development is to be served by existing City of Scottsdale water mains, only authorized City of Scottsdale Water and Wastewater Operations personnel shall install the water service connection.

DETAIL NO.  
**2330** **City of Scottsdale**  
**Standard Details**

## WATER SERVICE LINE CONNECTION

DETAIL NO.  
**2330**



NOTE:

Specifications on all fittings shall exceed the maximum pressures of the system.

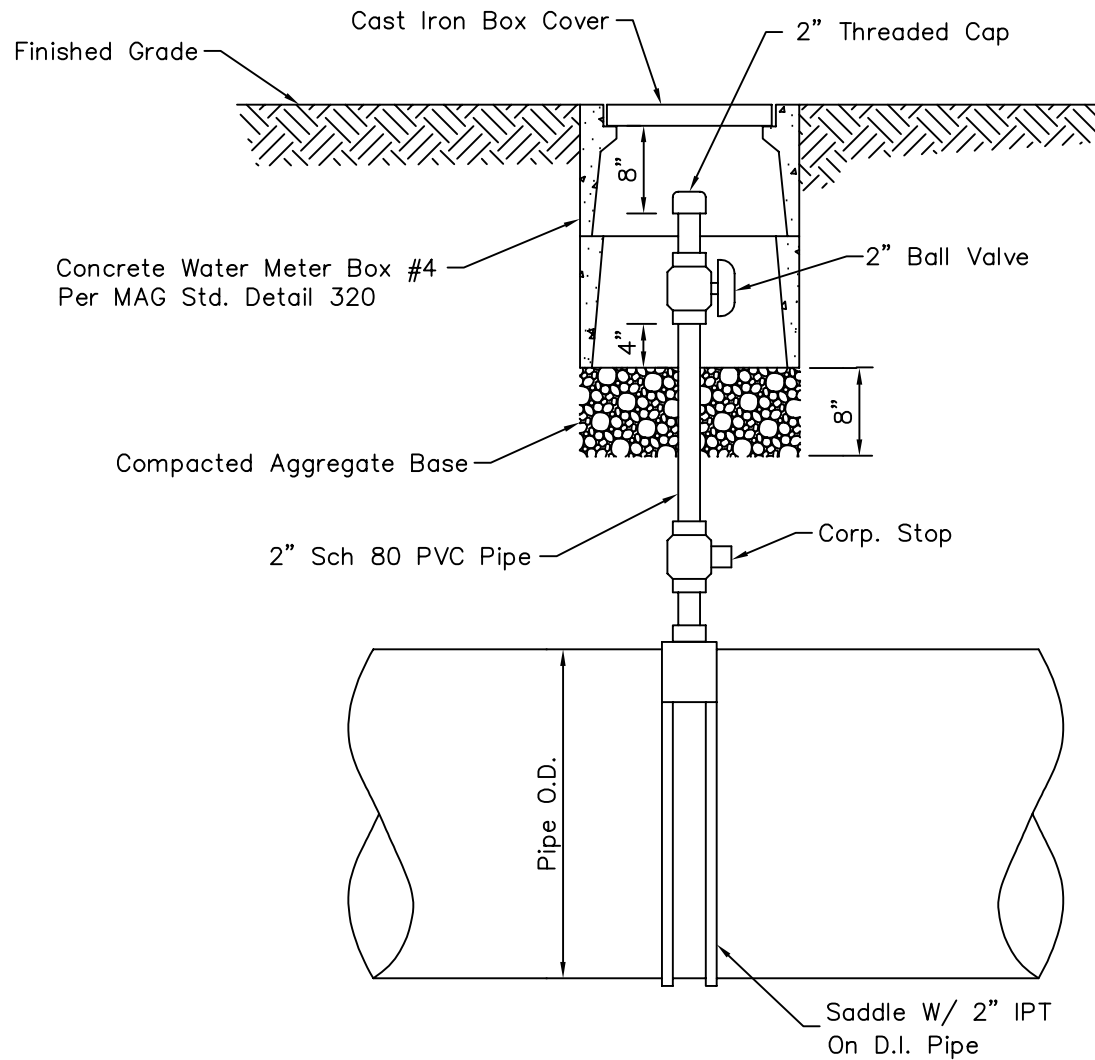
DETAIL NO.  
**2332**

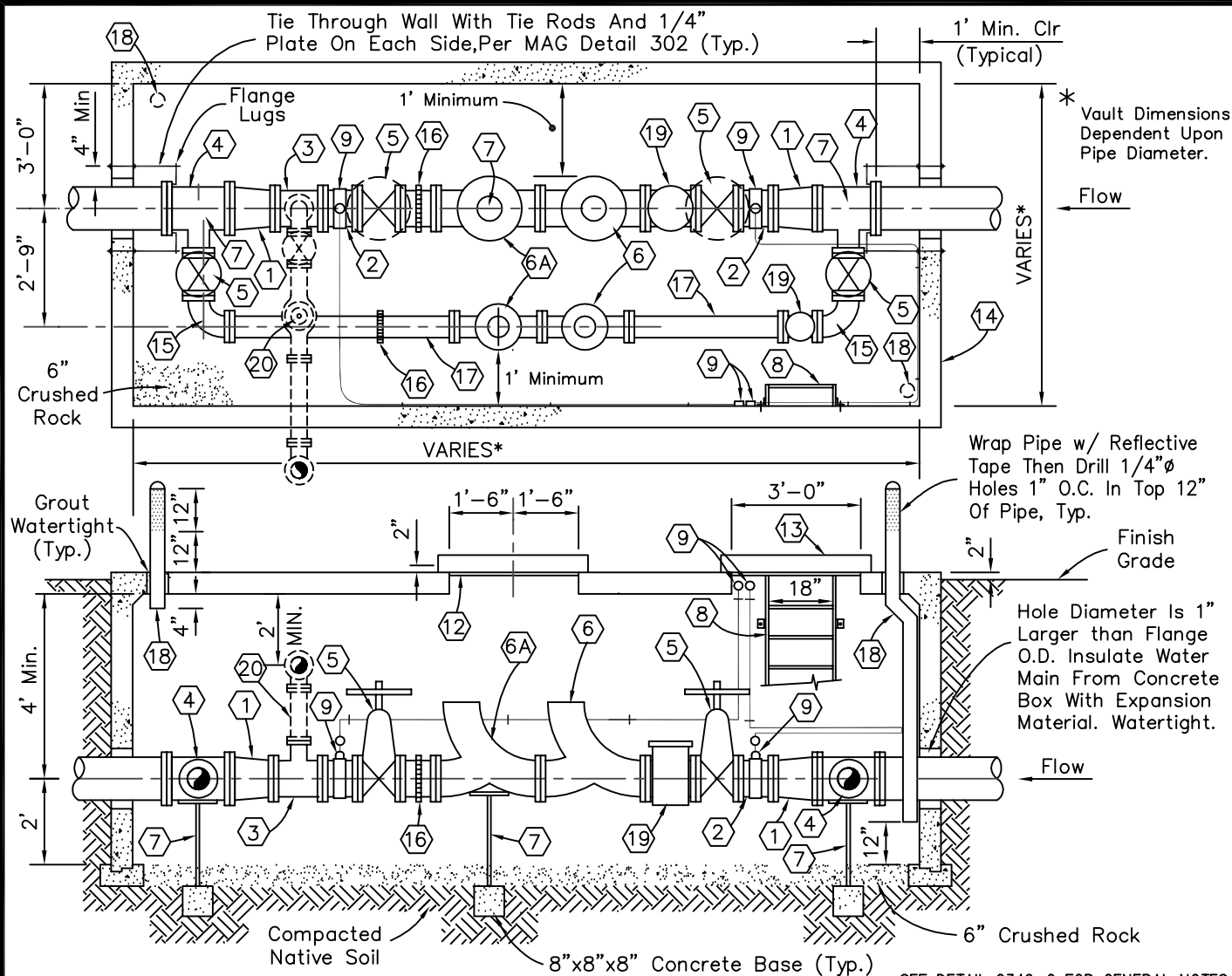
**City of Scottsdale  
Standard Details**

APPROVED BY:

**CHLORINE INJECTION TAP  
FOR UNDERGROUND WATERLINES**

DETAIL NO.  
**2332**

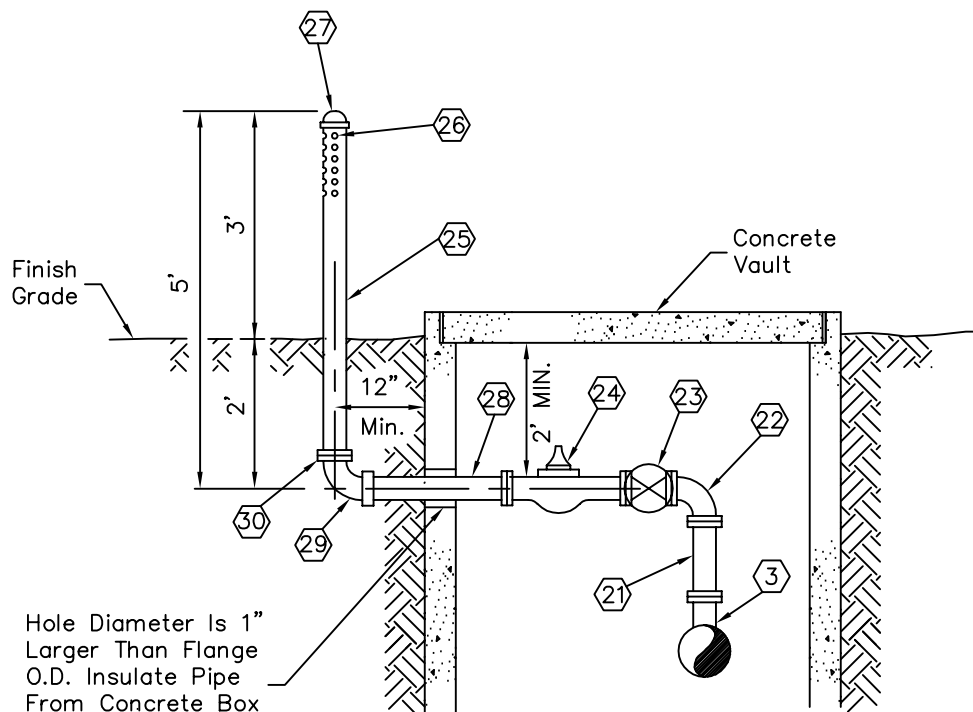




# NOTES

- 1 D.I.P. Flg Concentric Reducer
- 2 D.I.P. Flg x Flg Spool Piece
- 3 D.I.P. Flg x Flg Tee. Install Only When Detail 2342-2 Is Used.
- 4 D.I.P. Flg Reducing Tee
- 5 Flg NRS Resilient Wedge Gate Valve, Inside Epoxy Coated, Low Zinc Stem w/ Wheel Handle
- 6 Flg PRV Bermad Model 723-20-V-I-U w/ Valve Position Indicator & Low Flow V-Port Plug And Must Have Stainless Steel Pilot Tubing, Or Approved Equal.
- 6A Flg PRV Bermad Model 723-20-V-I-U w/ Valve Or Approved Equal Will Be Installed When Pressure Differential Is 100 psi Or Greater.
- 7 4" Dia Galv Adjustable Pipe Supports w/ 1" Adj. Rod And Nut On 8"x 8"x 8" Concrete Base.
- 8 Galv Access Ladder Bolted To Wall, 6" Stand Off.
- 9 Saddle With 1" Corp., 3/8" Brass Reducer, 3/8" 3/8" Brass Tee w/ Oil Filled 0-200 Pressure Gauge. Install 3/8" Stainless Tubing Strapped To Wall As Shown w/ Oil Filled Gauges Mounted At Access Door. Gages To Be Readable From Outside Vault.
- 12 For 8" Valves Or Larger Install Utility Vault Raised/ Adjustable Access Door, Model 3636, Or Approved Equal, Centered Over Main Valves For Removal.
- 13 Utility Vault Raised/Adjustable Steel Access Door For Inspection, Model 3636 Or Approved Equal. Place In Corner With Ladder.
- 14 Precast Concrete Water Utility Vault, Per MAG Std Det 321 & 345-1, Inside Dimensions Vary Depending On Pipe Size.
- 15 D.I.P. Flg 90° Elbow
- 16 Victaulic Coupling Or Approved Equal w/ All Thread Tie Rods.
- 17 D.I.P. Flg Pipe Spool
- 18 4" Galv. Steel Vent Pipe With Cap. Strap Pipe To Wall. Install Vents In Unpaved Areas Only.
- 19 Basket Type Strainer
- 20 4" Pressure Relief Bermad Model 730-I-U w/ Valve Position Indicator Or Approved Equal Required When Pressure Differential Meets Or Exceeds 100 PSI. See Detail 2342-2.

\* Engineer to note direction of flow and pressure setting on the plans.



Hole Diameter Is 1"  
Larger Than Flange  
O.D. Insulate Pipe  
From Concrete Box  
With Expansion  
Material. Watertight

## PRESSURE RELIEF OUTLET ASSEMBLY DETAIL

SEE NOTE 20 DETAIL 2342-1

### NOTES

- 3 Flg x Flg Tee, See Detail 2342-1
- 21 4" Flg Connecting Piece
- 22 4" DIP Flg x Flg 90° Elbow, w/ Restrained Joints (Meg A Lug Or Approved Equal)
- 23 4" Flg NRS Resilient Wedge Gate Valve, Inside Epoxy Coated, Low Zinc Stem w/ Handwheel
- 24 4" Flg PRV Bermad Model 730-I-U Or Approved Equal, Epoxy Coated w/ Valve Position Indicator
- 25 4" SCH. 40 Steel Pipe (Painted Desert Beige)
- 26 6 Rows 2" O.C. Of 3-1"Ø Holes, 180° Spray Pattern
- 27 4" SCH 40 Steel Cap (Threaded)
- 28 4" Ductile Pipe Spool
- 29 4" DIP MJ x Flg 90° Elbow
- 30 Flanged Connection w/ Breakaway Bolts

### GENERAL NOTES

1. All pipe and valves are to be rated per system pressure.
2. Pilot lines for all controls will be stainless steel tubing.
3. Stainless tubing bends will be uniform and made with a tubing bender.
4. Bypass line (small PRV) shall be 4" Min. D.I.P.
5. Airvents and relief outlet riser pipe shall not be located within 12 feet of an existing edge of pavement or within 2 feet of a barrier type curb or 2' back of sidewalk.

DETAIL NO.  
**2342-2**

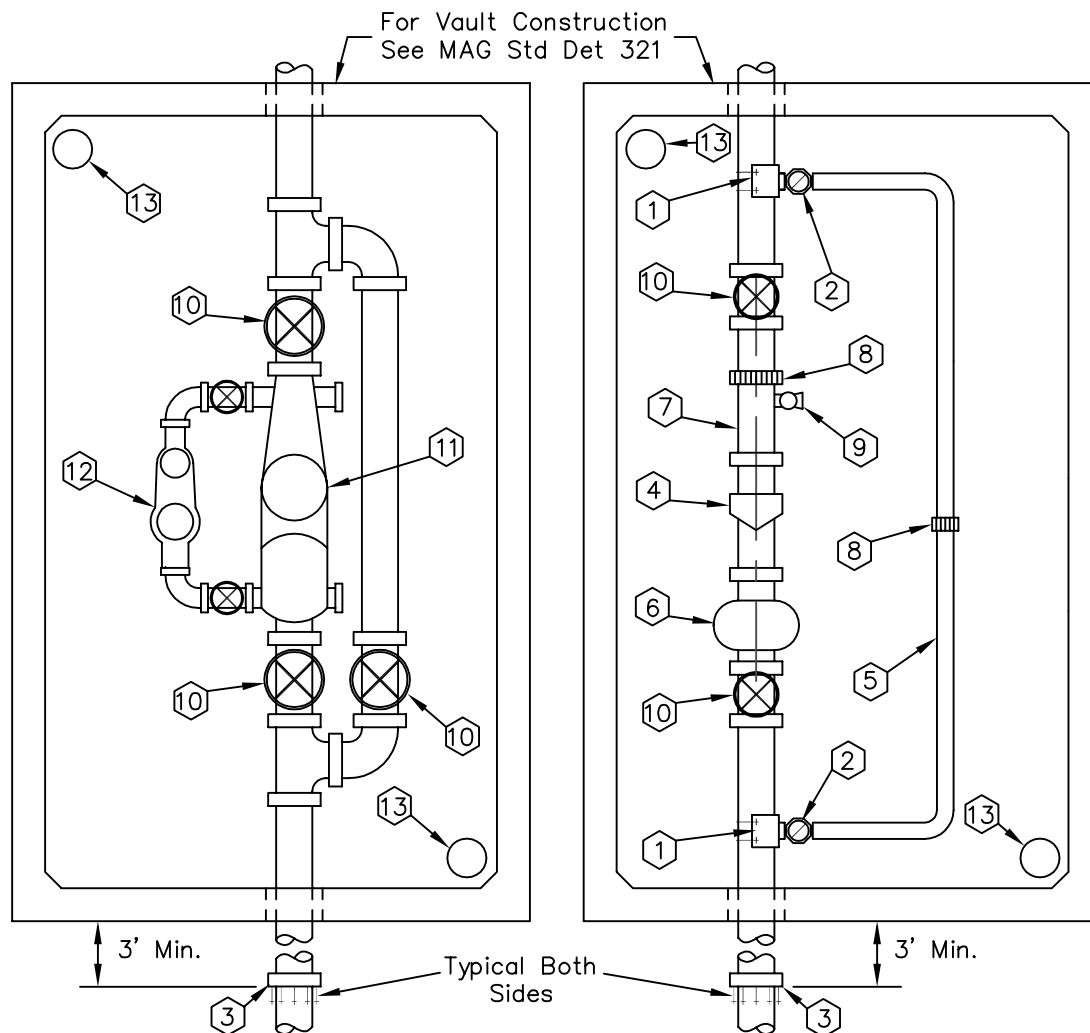
**City of Scottsdale  
Standard Details**

**PRESSURE REDUCING VALVE**

DETAIL NO.  
**2342-2**







**COMBINATION DOMESTIC/  
FIRE LINE METER**

**COMPOUND/TURBINE METER**

KEY NOTES

- ① Double Strap All Bronze Service Saddle, Or Flanged x Flanged Tee With Flanged X Flanged Valve For Sizes 3" Or Larger.
- ② Corp. Stop, 2"(Ball Type), Or R.W. Gate Valve With Non-Rising Stem Handwheel Operator For 3" Or Larger.
- ③ Adaptor, Flanged To Mech. Joint For A.C.P.
- ④ Turbine (High Flow) Or Compound Meter, See Note 4 Below.
- ⑤ 2" Ridged Type "K" Copper By-Pass Line, 3" Or Larger To Be Ductile Iron. Not Less Than One Pipe Size Smaller Than Meter In Note 4.
- ⑥ Strainer, Supplied with Meter.
- ⑦ Flanged Spool, (3 Pipe Diameters In Length, Min.).
- ⑧ Provide Victaulic Coupling Or Approved Equal For All Lines 3" Or Larger.
- ⑨ 2" Threaded Outlet And Ball Valve. Not Needed If Vertical Test Valve Is Provided On Meter.
- ⑩ Resilient Wedge Gate Valve, Flanged, With Hand Wheel, Open Left, With Non-Rising Stem.
- ⑪ Turbine (High Flow) Or Compound Meter, See Note 4 Below.
- ⑫ 2" Turbine Meter: Sensus "W-160" Or Hersey "MHR" Or Neptune Trident Turbine.
- ⑬ 3"Ø Air Vent, See Sheet 1 Of 2.

NOTES

1. For Larger Meters Special Vault Design Is Required.
2. Use Of Remote Reading Device At Option Of Utility.
3. An Approved Backflow Prevention Assembly Shall Be Required Downstream Of The Water Meter. Contact Water Resources, Backflow Prevention For Specific Information.
4. Meter To Be Provided By City Upon Payment Of Fees.

SHEET 2 OF 2

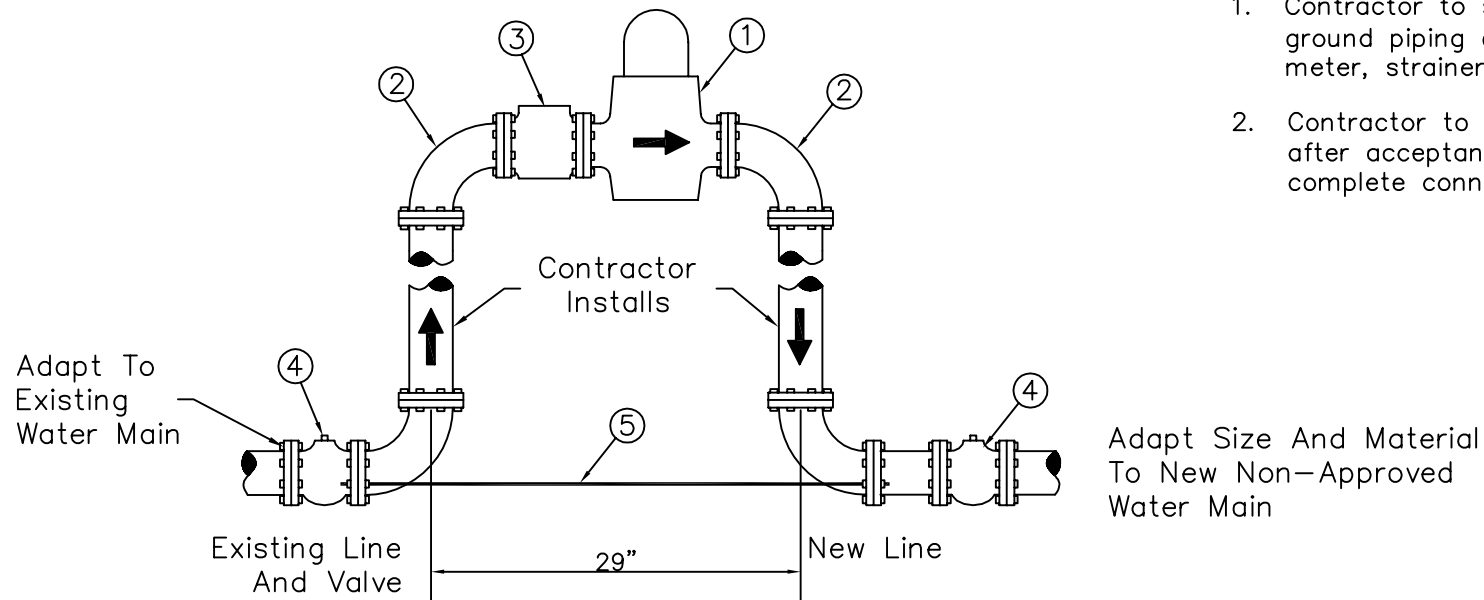
DETAIL NO.  
**2345-2** **City of Scottsdale**  
**Standard Details**

**3, 4", 6" WATER METER**

DETAIL NO.  
**2345-2**

GENERAL NOTES

1. Contractor to supply and install above ground piping and fittings to accommodate meter, strainer and 2 – 90° ells.
2. Contractor to remove piping and fittings after acceptance of new water main and complete connection as per MAG Standards.

LIST OF MATERIALS

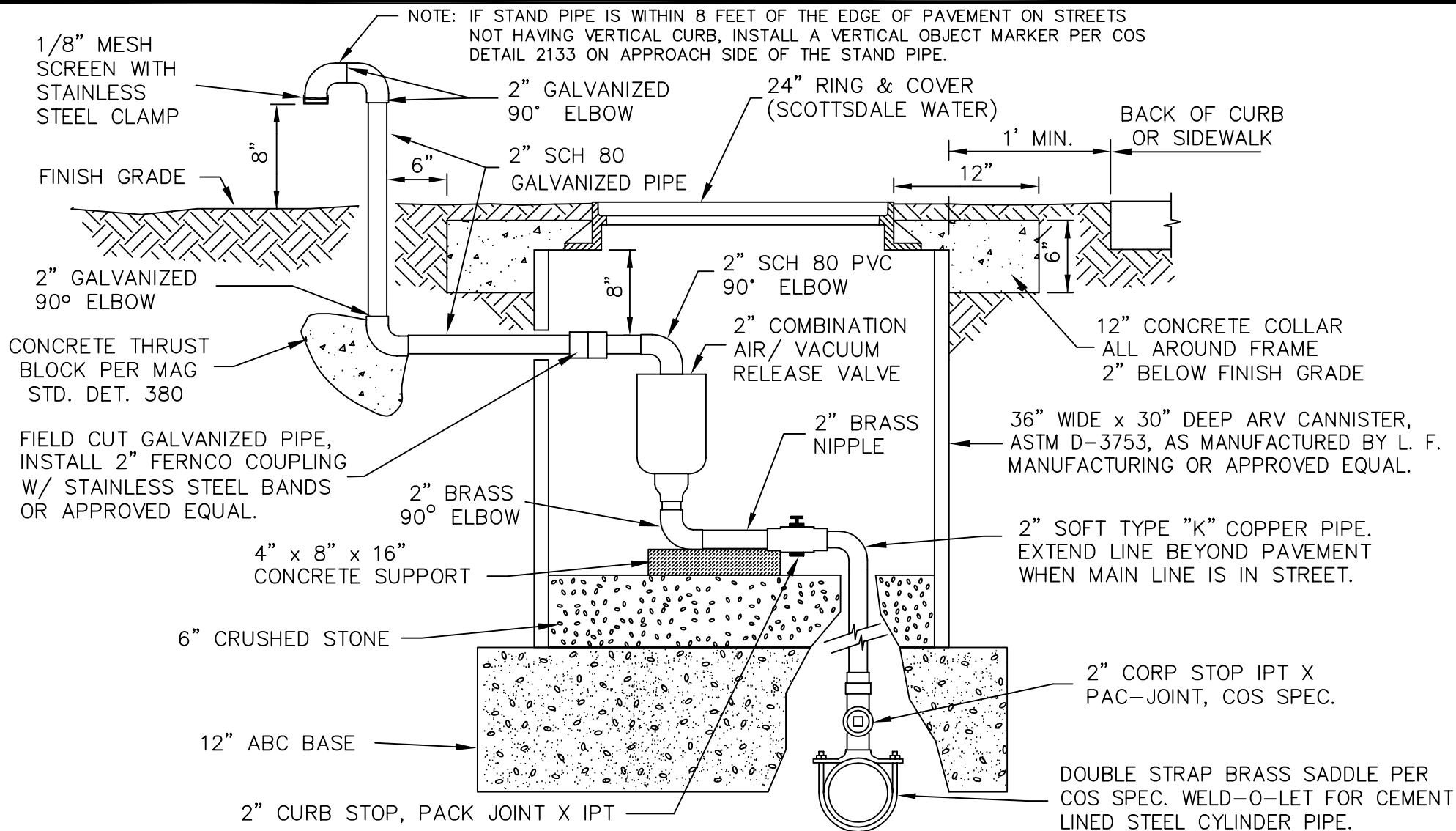
- ① 3", 4" & 6" Pressure regulating valve with meter and check feature – supplied by COS.
- ② 3", 4" & 6" Flanged ductile iron 90° ell – supplied by COS.
- ③ 3", 4" & 6" Strainer – supplied by COS.
- ④ Line valves shall be within a 20' maximum distance upstream and downstream of flow meter or as approved by COS, and shall remain in-place after removal of temporary meter.
- ⑤ 3/4"Ø zinc coated threaded rod.

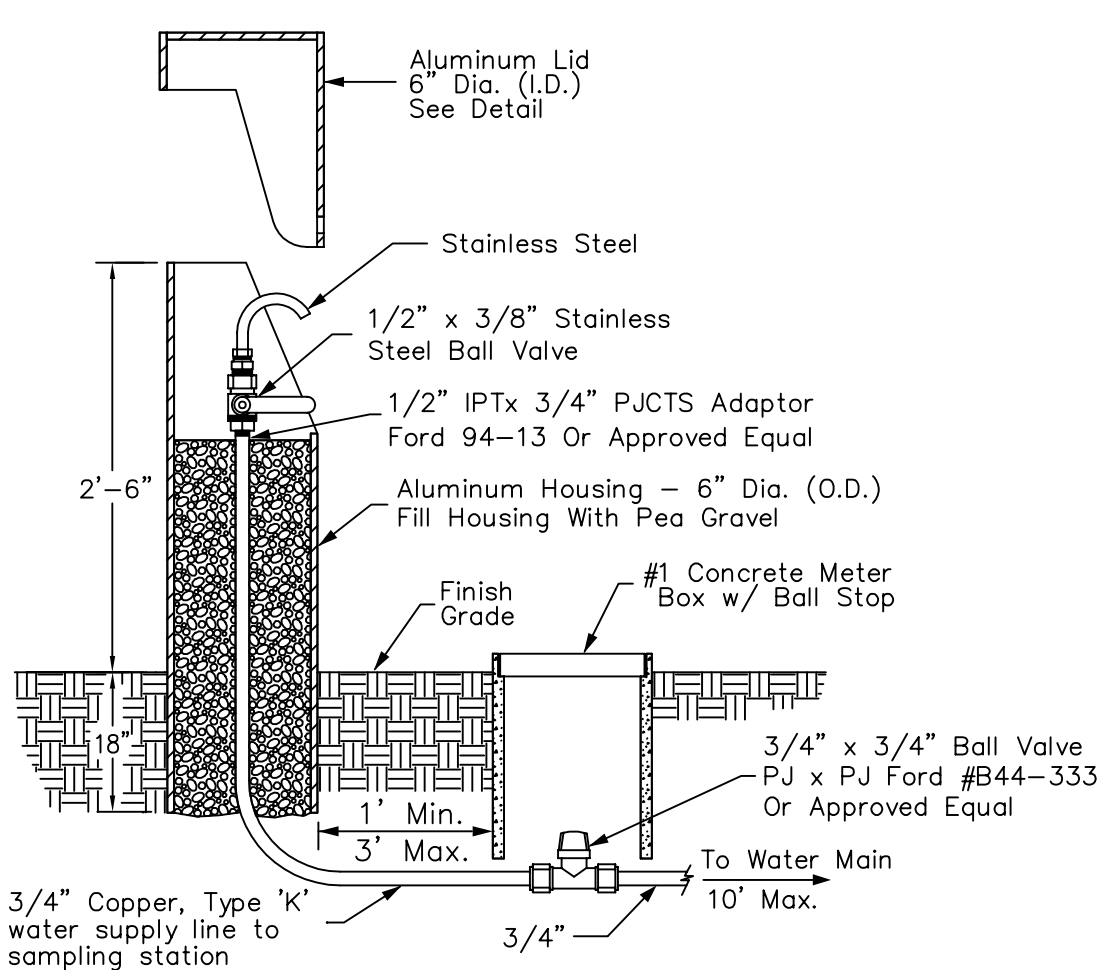
DETAIL NO.  
**2346**

**City of Scottsdale**  
**Standard Details**

## TEMPORARY CONSTRUCTION METER

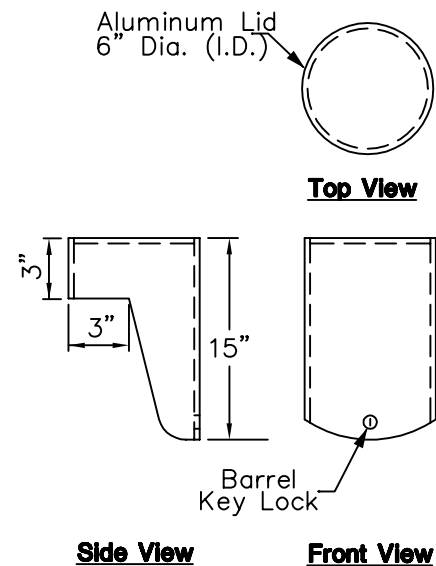
DETAIL NO.  
**2346**





### **TYPICAL INSTALLATION**

N.T.S.



### **LID DETAILS**

N.T.S.

#### **NOTES:**

1. Water Quality Sampling Station to be Koralean or approved equal.
2. Keys to locks shall be delivered to City of Scottsdale Water Quality Department upon acceptance.

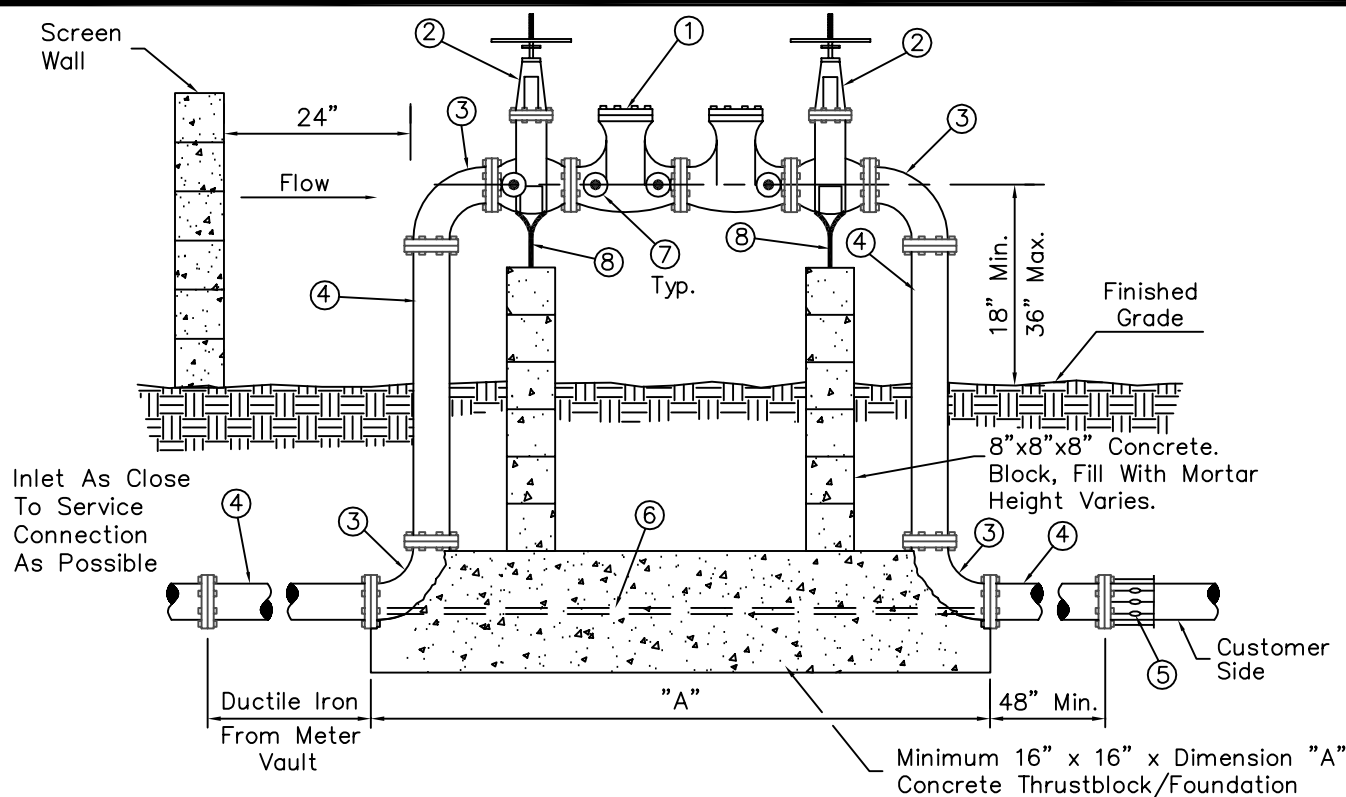
DETAIL NO.  
**2349**

**City of Scottsdale  
Standard Details**

APPROVED BY:

**WATER QUALITY SAMPLING STATION**

DETAIL NO.  
**2349**



## LIST OF MATERIALS

- |  |  |
|--|--|
| <p>① Approved double check valve backflow prevention assembly.</p> <p>② Resilient seated gate valve.<br/>O.S. &amp; Y. (fire line connection)<br/>N.R.S. (non fire line)</p> <p>③ 90° ell. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.</p> <p>④ Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.</p> <p>⑤ Flanged adapter (when required)</p> | <p>⑥ 3/4" zinc coated threaded rod, (5/8" rod on 3" to 4" sizes), bolt to flanges as shown, typical both sides.</p> <p>⑦ Test cocks with brass plugs or adaptors with caps installed. (4 required)</p> <p>⑧ Adjustable metal pipe supports and concrete block supports with 1" adjusting rod and nut on assemblies 4" and larger. Install above grade.</p> |
|--|--|

## GENERAL NOTES

1. Contact the City Of Scottsdale Water And Wastewater Operations, Backflow Prevention, 312-5668, for latest list of approved backflow prevention assemblies or certified testers.
2. Backflow preventers must be tested by a certified tester before final approval is issued.
3. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
4. For backflow preventers requiring guard posts see Detail 2356. Backflow preventers enclosed by screening shall maintain a 24 inch clearance around the assembly.
5. Finished grade underneath the backflow preventer shall be at 95% compaction.
6. Backflow preventers on fire lines may require tamper switches on the shut off valves. Contact City Of Scottsdale Plan Review, Fire Dept.
7. Call for underground inspection before backfilling trench.
8. Vertical installations of assemblies on fire sprinkler systems are allowed using assemblies approved for use in the vertical position on fire systems.

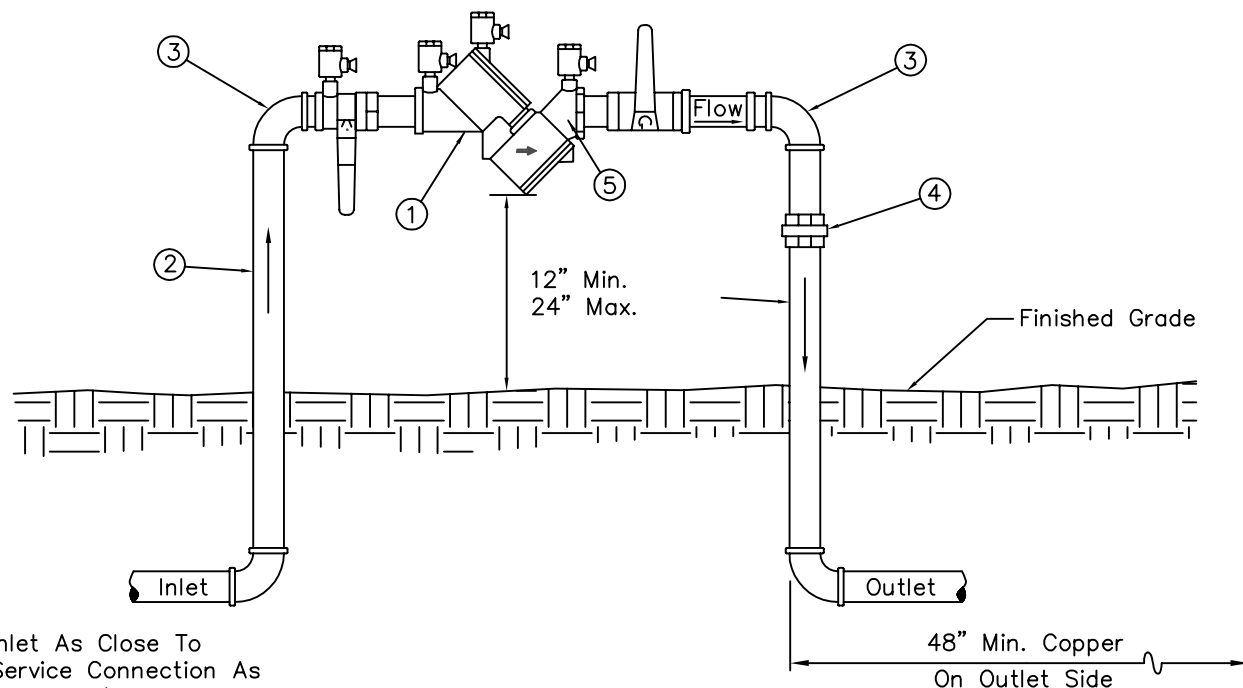
DETAIL NO.  
**2351**

**City of Scottsdale**  
**Standard Details**

APPROVED BY: \_\_\_\_\_

**DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY**  
**FOR ASSEMBLIES 3 INCHES THRU 10 INCHES**

DETAIL NO.  
**2351**



Inlet As Close To  
Service Connection As  
Possible (Immediately  
After Water Meter).  
Copper On Inlet Side.

#### LIST OF MATERIALS

- ① Approved double check valve backflow prevention assembly, ball valves included.
- ② Pipe spool, type "L" hard copper, 3/4" thru 2 1/2".
- ③ 90° ell, copper, 3/4" thru 2 1/2".
- ④ Pipe union, brass or copper.
- ⑤ Test cocks with brass plugs or adaptors with caps installed. (4 required)

#### GENERAL NOTES

1. Contact the City Of Scottsdale Water And Wastewater Operations, Backflow Prevention, 312-5668, for latest list of approved backflow prevention assemblies or certified testers.
2. Backflow preventers must be tested by a certified tester before final approval is issued.
3. Copper fittings shall be connected with lead free solder joints.
4. Finished grade underneath the backflow preventer shall be at 95% compaction.
5. All nipples to be copper or brass.
6. Piping under the City right of way must be type "K" copper.
7. Call for underground inspection before backfilling trench.
8. Vertical installations of assemblies on fire sprinkler systems are allowed using assemblies approved for use in the vertical position on fire systems.

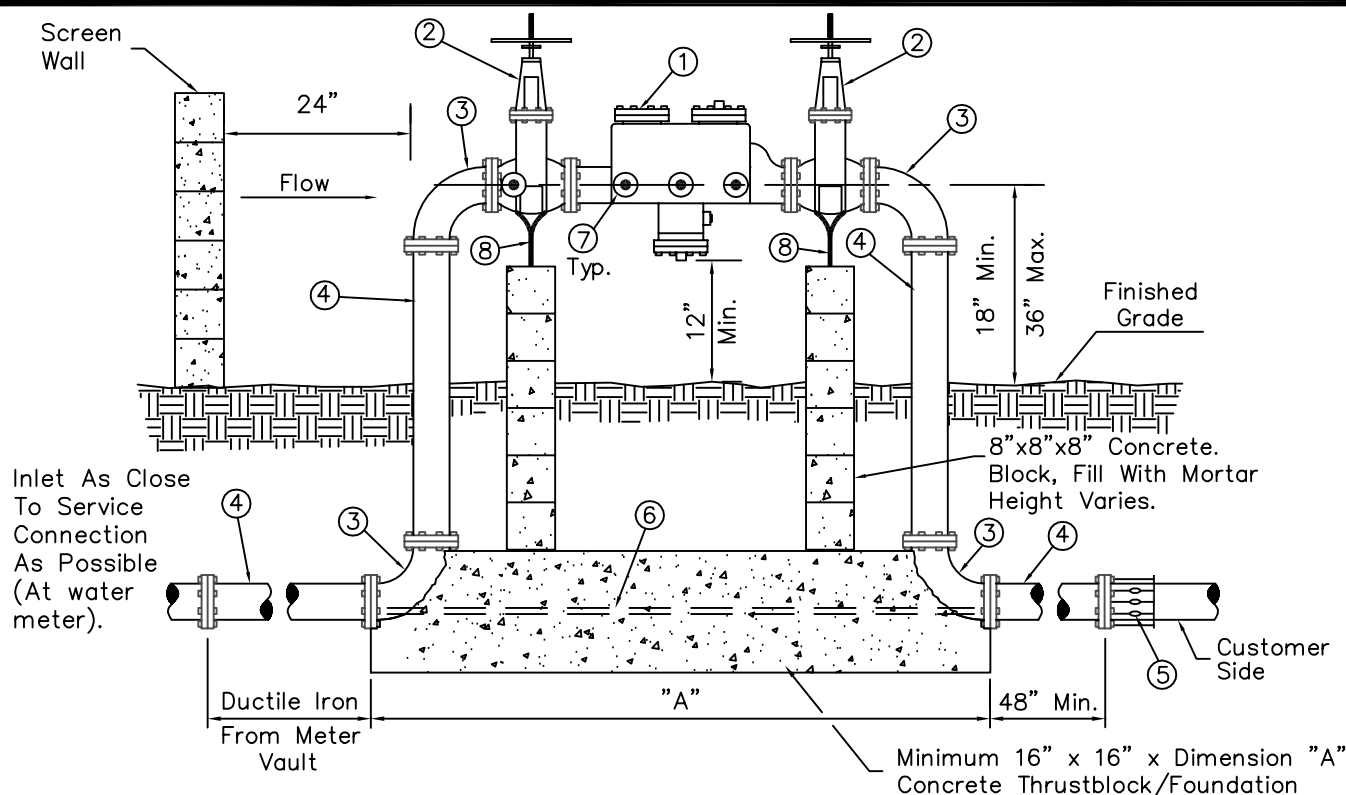
DETAIL NO.  
**2352**

**City of Scottsdale**  
**Standard Details**

APPROVED BY:

**DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY**  
**FOR ASSEMBLIES 3/4 INCH THRU 2 1/2 INCHES**

DETAIL NO.  
**2352**



## GENERAL NOTES

1. Contact the City Of Scottsdale Water And Wastewater Operations, Backflow Prevention, 312-5668, for latest list of approved backflow prevention assemblies or certified testers.
2. Backflow preventers must be tested by a certified tester before final approval is issued.
3. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
4. For backflow preventers requiring guard posts see Detail 2356. Backflow preventers enclosed by screening shall maintain a 24 inch clearance around the assembly.
5. Finished grade underneath the backflow preventer shall be at 95% compaction.
6. Backflow preventers on fire lines may require tamper switches on the shut off valves. Contact City Of Scottsdale Plan Review, Fire Dept.
7. Call for underground inspection before backfilling trench.

## LIST OF MATERIALS

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>① Approved reduced pressure principle backflow prevention assembly.</li> <li>② Resilient seated gate valve. O.S. &amp; Y. (fire line connection). N.R.S. (non fire line)</li> <li>③ 90° ell. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.</li> <li>④ Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.</li> <li>⑤ Flanged adapter (when required)</li> </ol> | <ol style="list-style-type: none"> <li>⑥ 3/4" zinc coated threaded rod, (5/8" rod on 3" to 4" sizes), bolt to flanges as shown, typical both sides.</li> <li>⑦ Test cocks with brass plugs or adaptors with caps installed. (4 required)</li> <li>⑧ Adjustable metal pipe supports and concrete block supports with 1" adjusting rod and nut on assemblies 4" and larger. Install above grade.</li> </ol> |
|--|---|

DETAIL NO.  
**2353**

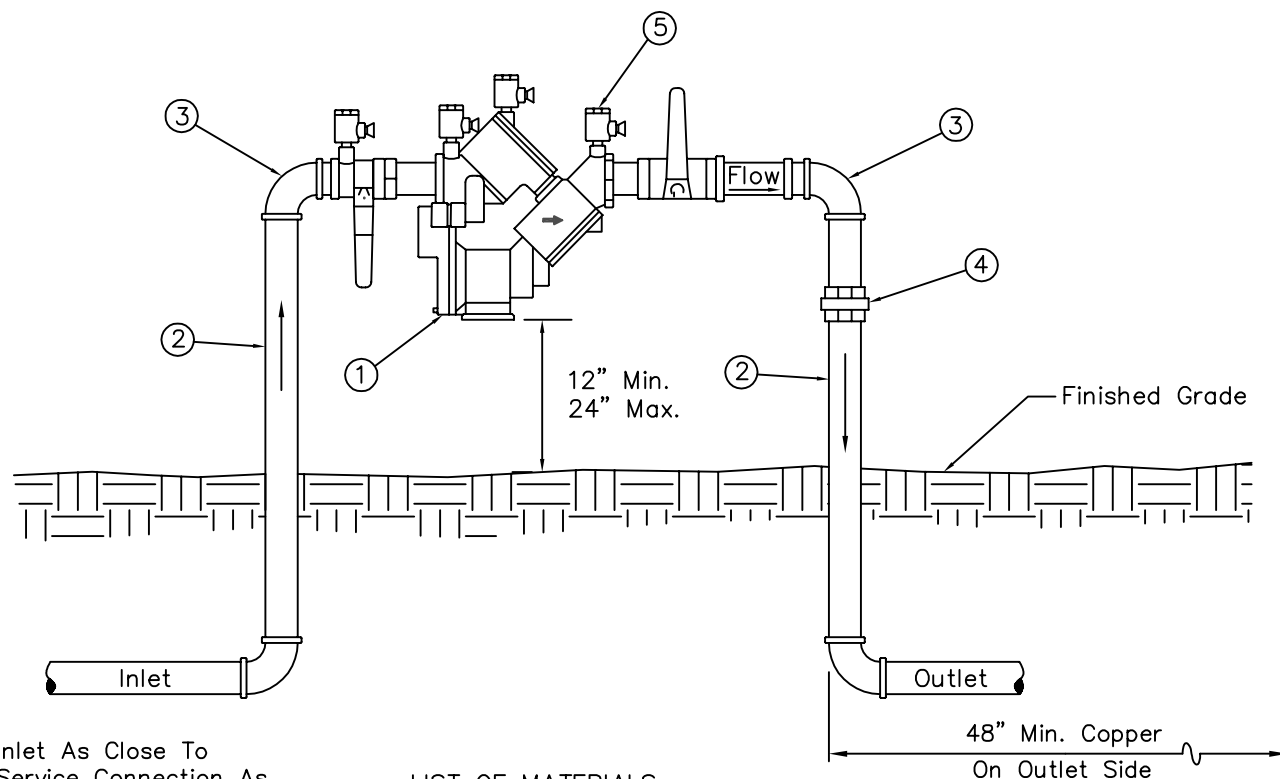
**City of Scottsdale**  
**Standard Details**

APPROVED BY: \_\_\_\_\_

**REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION  
ASSEMBLY FOR ASSEMBLIES 3 INCHES THRU 10 INCHES**

DETAIL NO.  
**2353**





Inlet As Close To  
Service Connection As  
Possible (Immediately  
After Water Meter).  
Copper On Inlet Side.

#### LIST OF MATERIALS

- ① Approved reduced pressure principle backflow prevention assembly, ball valves included.
- ② Pipe spool, type "L" hard copper, 3/4" thru 2 1/2".
- ③ 90° ell, copper, 3/4" thru 2 1/2".
- ④ Pipe union, brass or copper.
- ⑤ Test cocks with brass plugs or adaptors with caps installed. (4 Required)

#### GENERAL NOTES

1. Contact the City Of Scottsdale Water And Wastewater Operations, Backflow Prevention 312-5668, for latest list of approved backflow prevention assemblies or certified testers.
2. Backflow preventers must be tested by a certified tester before final approval is issued.
3. Copper fittings shall be connected with lead free solder joints.
4. Finished grade underneath the backflow preventer shall be at 95% compaction.
5. All nipples to be copper or brass.
6. Piping under the City right of way must be type "K" copper.
7. Call for underground inspection before backfilling trench.

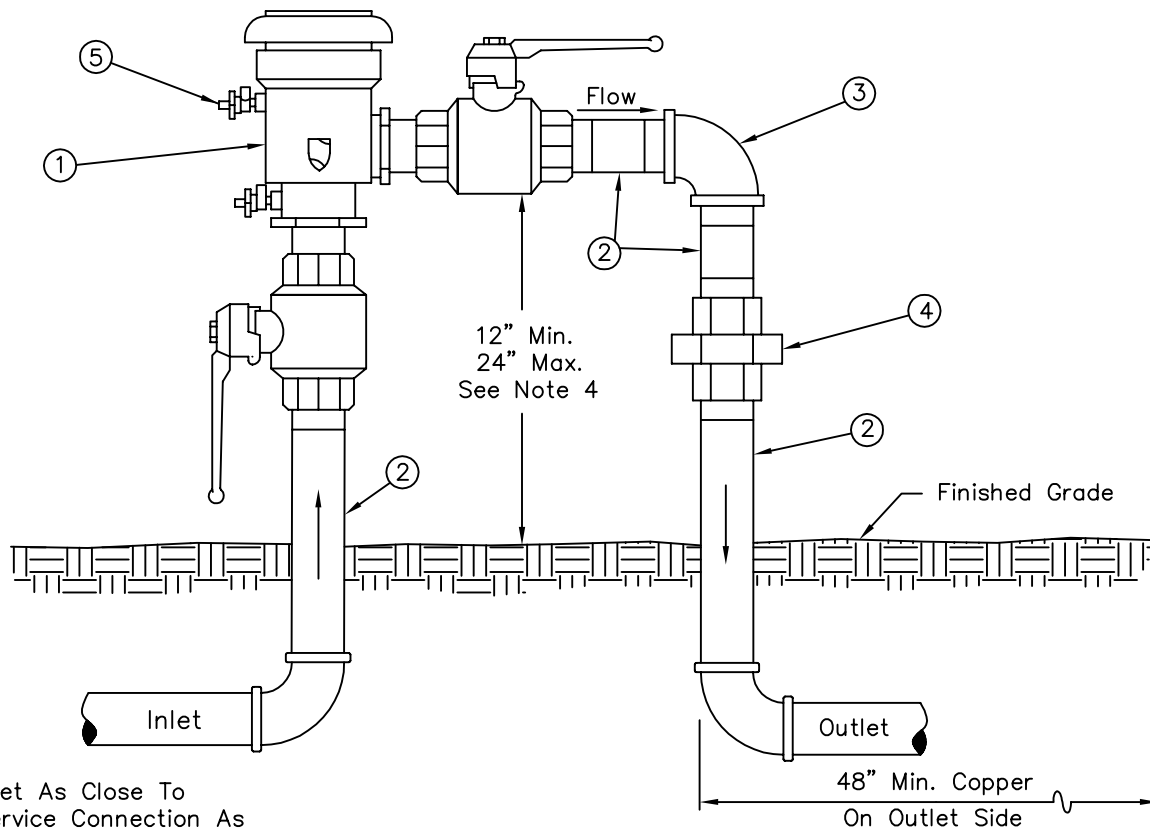
DETAIL NO.  
**2354**

**City of Scottsdale**  
**Standard Details**

APPROVED BY: \_\_\_\_\_

**REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION  
ASSEMBLY FOR ASSEMBLIES 3/4 INCH THRU 2 1/2 INCHES**

DETAIL NO.  
**2354**



Inlet As Close To Service Connection As Possible (Immediately After Water Meter). Copper On Inlet Side.

#### LIST OF MATERIALS

- ① Approved pressure vacuum breaker assembly, ball valves included.
- ② Pipe spool, type "L" hard copper, 1/2" thru 2".
- ③ 90° ell, copper, 1/2" thru 2".
- ④ Pipe union, brass or copper.
- ⑤ Test cocks with brass plugs or adaptors with caps installed. (2 required)

#### GENERAL NOTES

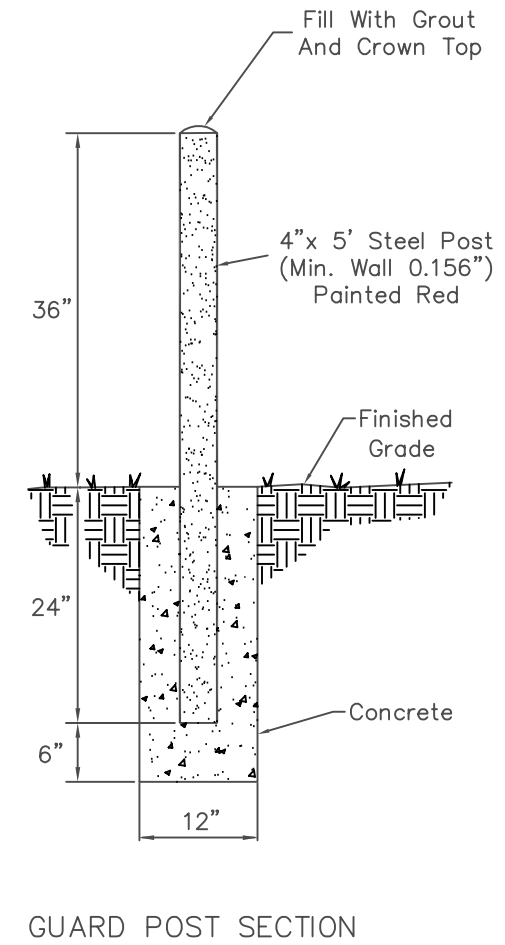
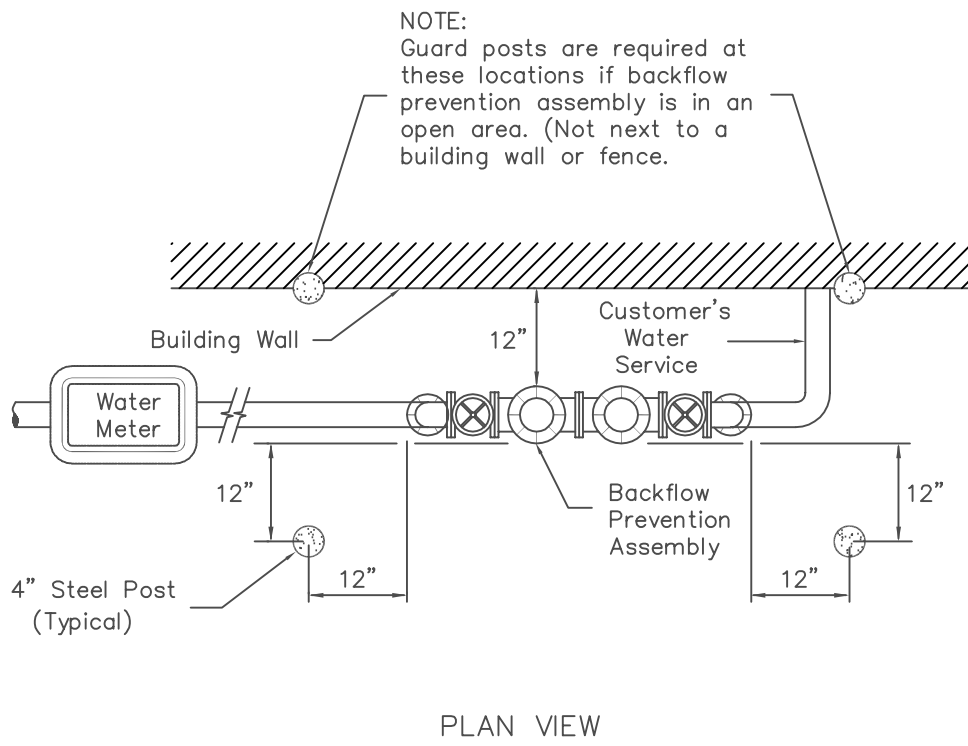
1. Contact the City Of Scottsdale Water And Wastewater Operations, Backflow Prevention, 312-5668, for latest list of approved backflow prevention assemblies or certified testers.
2. Backflow preventers must be tested by a certified tester before final approval is issued.
3. Pressure vacuum breakers must be installed at least 12" above all downstream piping.
4. If this distance exceeds 24 inches, a reduced pressure principle backflow prevention assembly must be utilized. See Detail 2354.
5. Copper fittings shall be connected with lead free solder joints.
6. Finished grade underneath the backflow preventer shall be at 95% compaction.
7. All nipples to be copper or brass.
8. Piping under the City right of way must be type "K" copper.
9. Call for underground inspection before backfilling trench.

DETAIL NO.  
**2355** City of Scottsdale  
Standard Details

APPROVED BY:

**PRESSURE VACUUM BREAKER ASSEMBLY**  
**FOR ASSEMBLIES 1/2 INCH THRU 2 INCHES**

DETAIL NO.  
**2355**



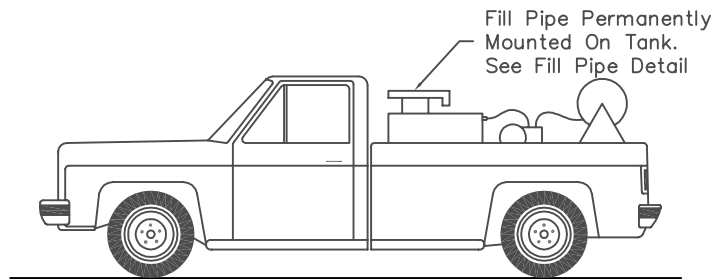
DETAIL NO.  
**2356**

**City of Scottsdale**  
**Standard Details**

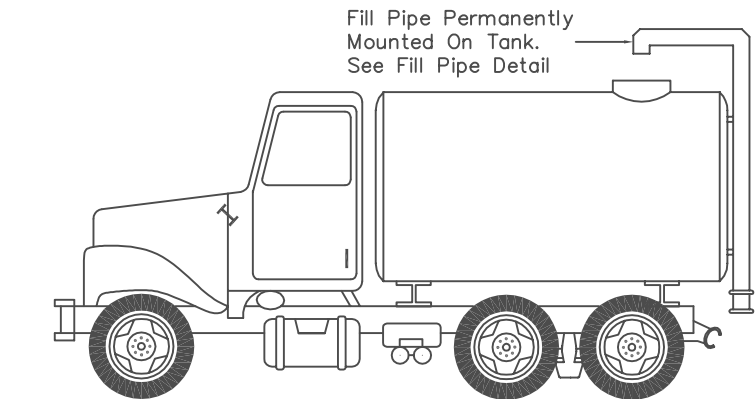
APPROVED BY:

**GUARD POSTS FOR BACKFLOW PREVENTION ASSEMBLIES**

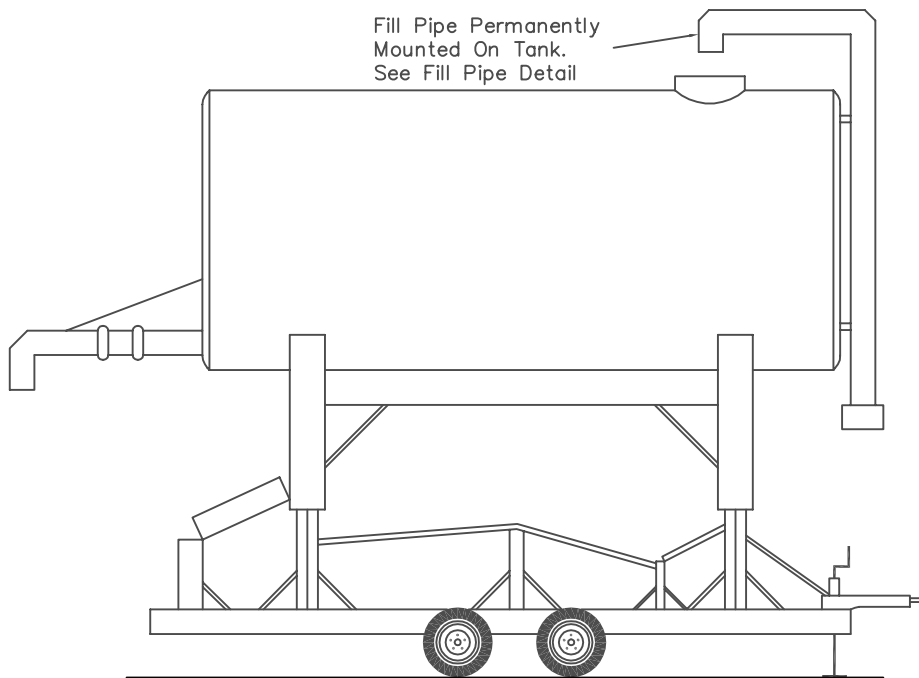
DETAIL NO.  
**2356**



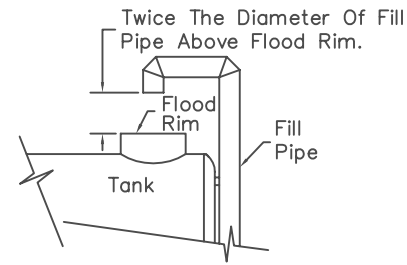
PESTICIDE APPLICATOR TRUCK



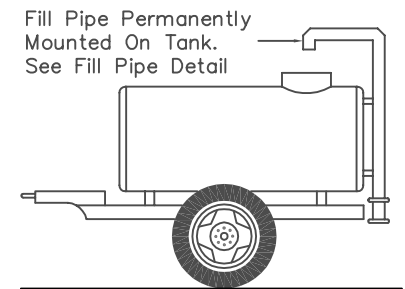
WATER TRUCK



ELEVATED TANK



FILL PIPE DETAIL



WATER WAGON

DETAIL NO.  
**2357**

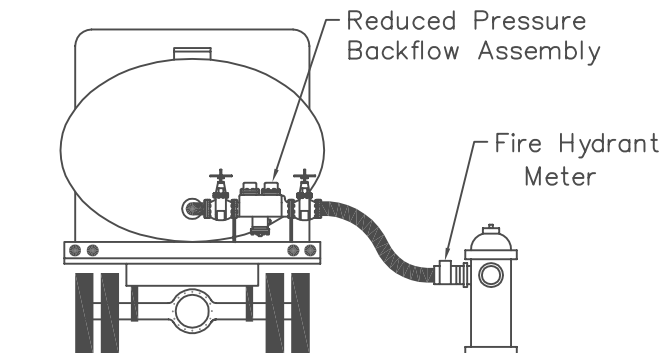
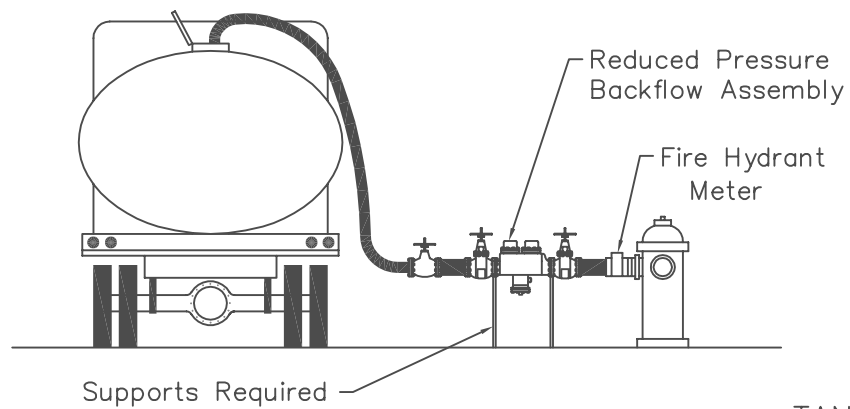
**City of Scottsdale  
Standard Details**

APPROVED BY:

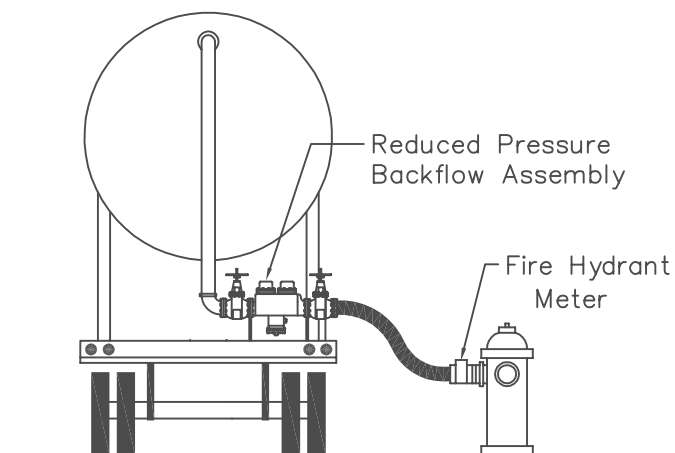
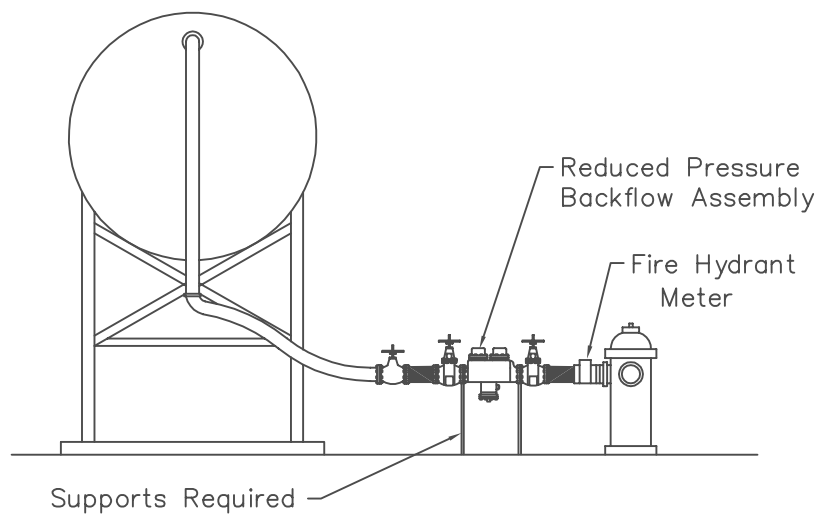
\_\_\_\_\_

**FILL PIPE DETAILS FOR PORTABLE TANKS WITH  
AIR GAP SEPARATION**

DETAIL NO.  
**2357**



TANK TRUCKS



ELEVATED TANKS

DETAIL NO.  
**2358**

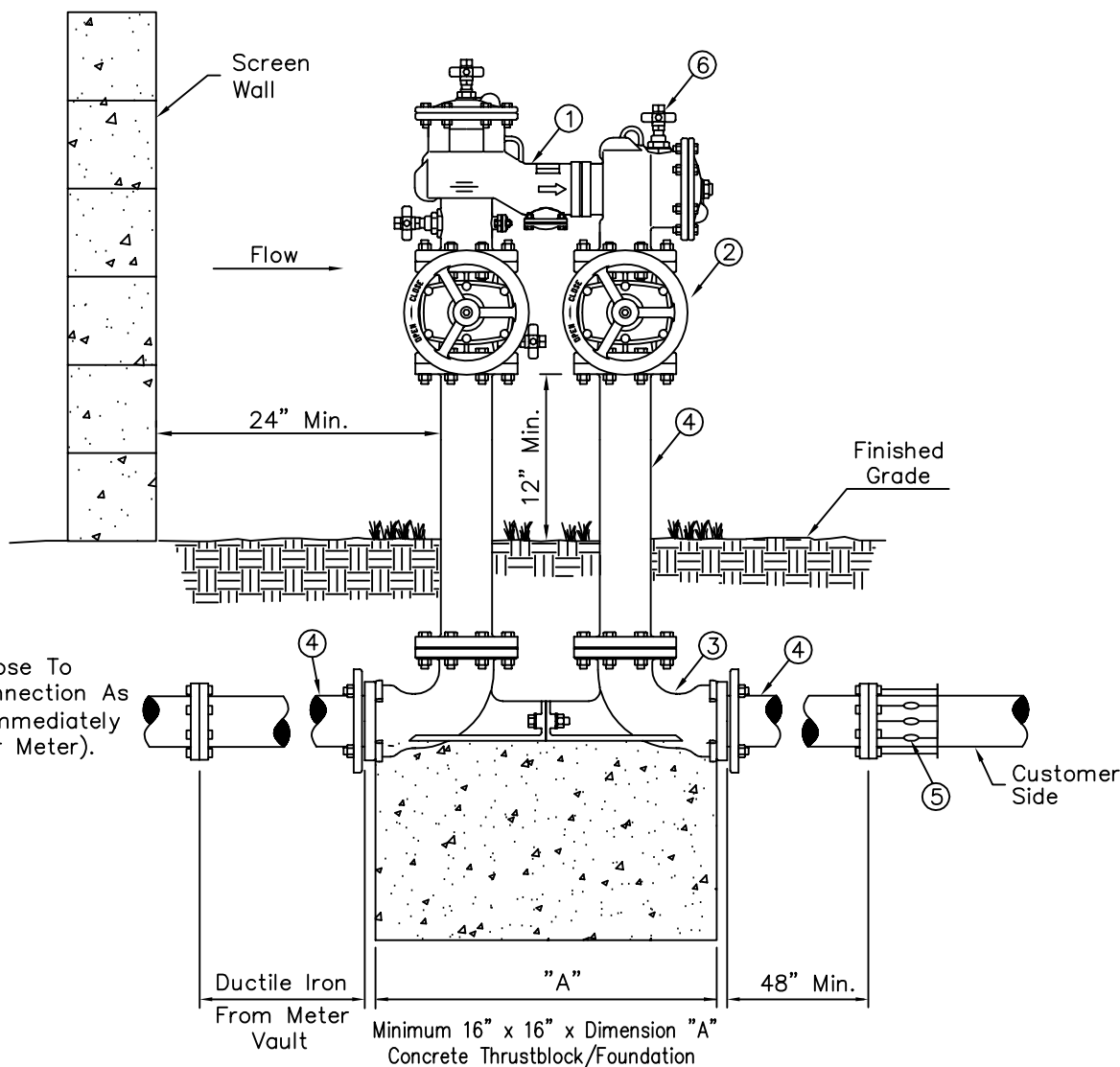
**City of Scottsdale  
Standard Details**

APPROVED BY:

\_\_\_\_\_

**BACKFLOW PREVENTION METHOD FOR PORTABLE TANKS  
WITH NO AIR GAP SEPARATION**

DETAIL NO.  
**2358**



# GENERAL NOTES

1. Contact the City Of Scottsdale Water And Wastewater Operations, Backflow Prevention, 312-5668, for latest list of approved backflow prevention assemblies or certified testers.
2. Backflow preventers must be tested by a certified tester before final approval is issued.
3. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
4. For backflow preventers requiring guard posts see Detail 2356. Backflow preventers enclosed by screening shall maintain a 24 inch clearance around the assembly.
5. Finished grade underneath the backflow preventer shall be at 95% compaction.
6. Backflow preventers on fire lines may require tamper switches on the shut off valves. Contact City Of Scottsdale Plan Review, Fire Dept.
7. Call for underground inspection before backfilling trench.

## LIST OF MATERIALS

- ① Approved "N" shape double check valve backflow prevention assembly.
- ② Resilient seated gate valve.  
O.S. & Y. (fire line connection)  
N.R.S. (non fire line)
- ③ Valve setters, fusion epoxy coated ductile iron, plated nuts and bolts. (2 required)
- ④ Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
- ⑤ Flanged adapter (when required)
- ⑥ Test cocks with brass plugs or adaptors with caps installed. (4 required)

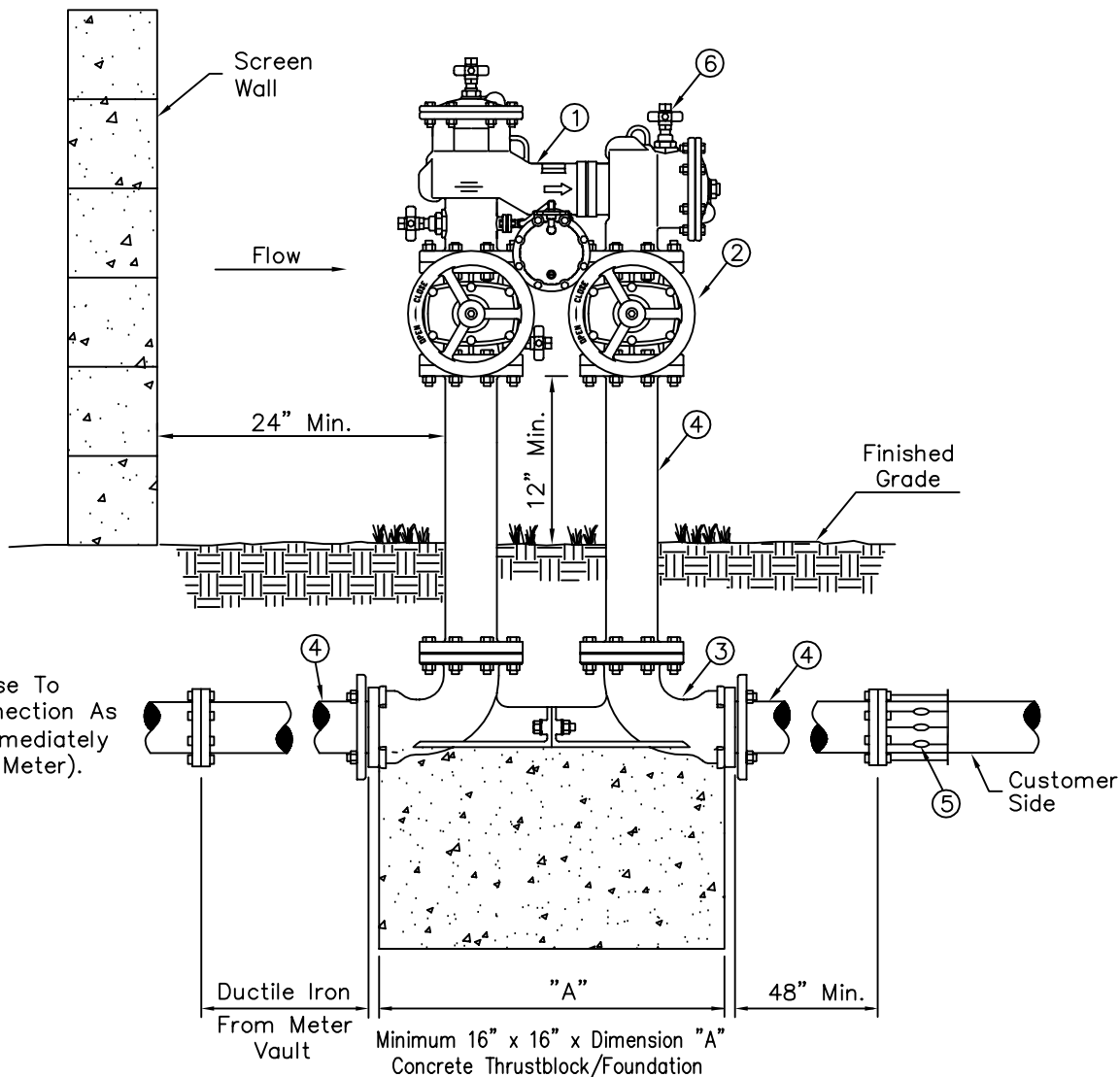
DETAIL NO.  
**2359**

**City of Scottsdale**  
**Standard Details**

APPROVED BY:

**"N" SHAPED DOUBLE CHECK VALVE BACKFLOW PREVENTION  
ASSEMBLY FOR ASSEMBLIES 3 INCHES THRU 10 INCHES**

DETAIL NO.  
**2359**



#### GENERAL NOTES

1. Contact the City Of Scottsdale Water And Wastewater Operations, Backflow Prevention, 312-5668, for latest list of approved backflow prevention assemblies or certified testers.
2. Backflow preventers must be tested by a certified tester before final approval is issued.
3. Backflow preventers shall be painted light tan or a color to match the building. Do not paint the name plate or any brass parts on the assembly.
4. For backflow preventers requiring guard posts see Detail 2356. Backflow preventers enclosed by screening shall maintain a 24 inch clearance around the assembly.
5. Finished grade underneath the backflow preventer shall be at 95% compaction.
6. Backflow preventers on fire lines may require tamper switches on the shut off valves. Contact City Of Scottsdale Plan Review, Fire Dept.
7. Call for underground inspection before backfilling trench.

#### LIST OF MATERIALS

- ① Approved "N" shape reduced pressure principle backflow prevention assembly.
- ② Resilient seated gate valve.  
O.S. & Y. (fire line connection)  
N.R.S. (non fire line)
- ③ Valve setters, fusion epoxy coated ductile iron, plated nuts and bolts. (2 required)
- ④ Pipe spool. Flanged D.I.P. 3" thru 10", Mega Lug or approved equal may be used on underground joints.
- ⑤ Flanged adapter (when required)
- ⑥ Test cocks with brass plugs or adaptors with caps installed. (4 required)

DETAIL NO.  
**2360**

**City of Scottsdale**  
**Standard Details**

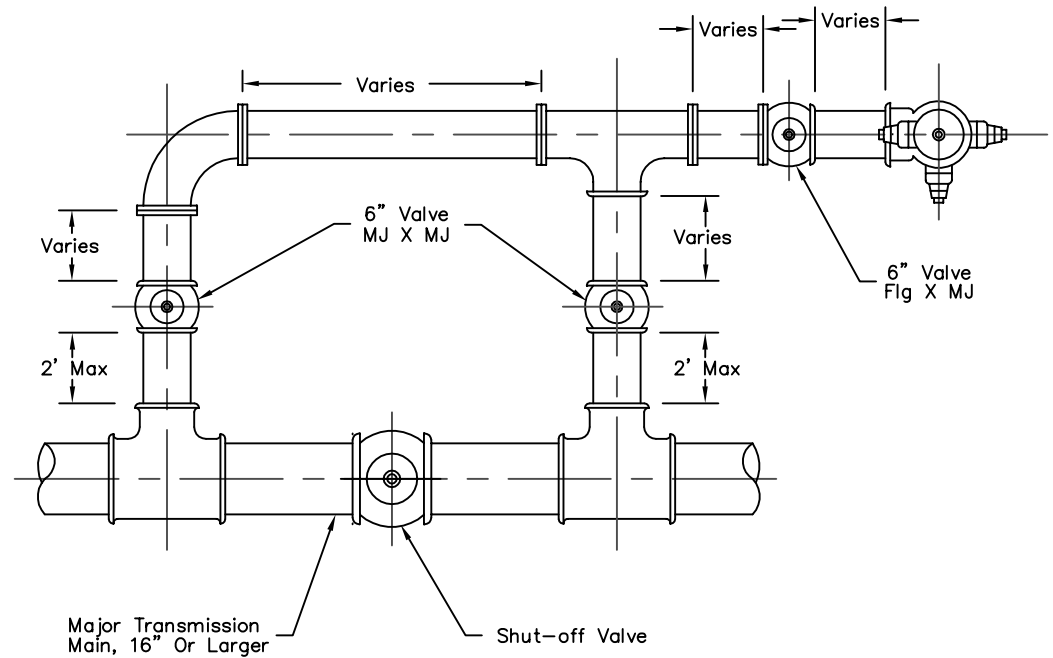
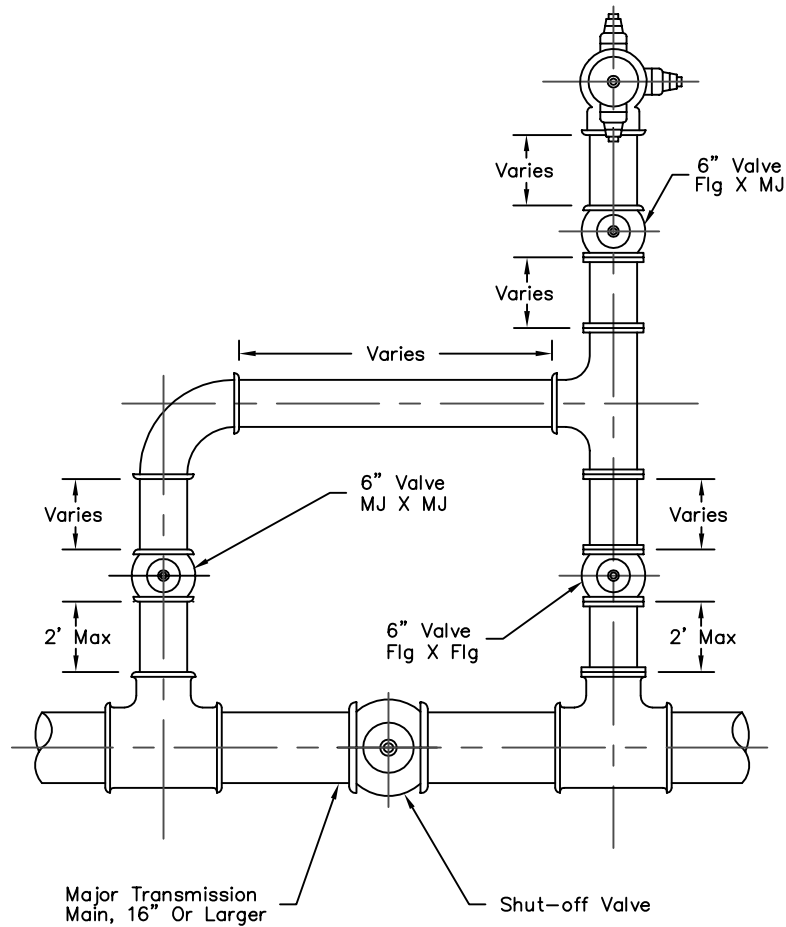
APPROVED BY:

**"N" SHAPED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION  
ASSEMBLY FOR ASSEMBLIES 3 INCHES THRU 10 INCHES**

DETAIL NO.  
**2360**

## NOTES

1. All joints in hydrant run-out to be restrained joints.
2. See MAG Std. Detail 391-C for valve box installation.
3. For water valve blocking see MAG Std. Detail 301.
4. For additional information see MAG Std. Detail 360.



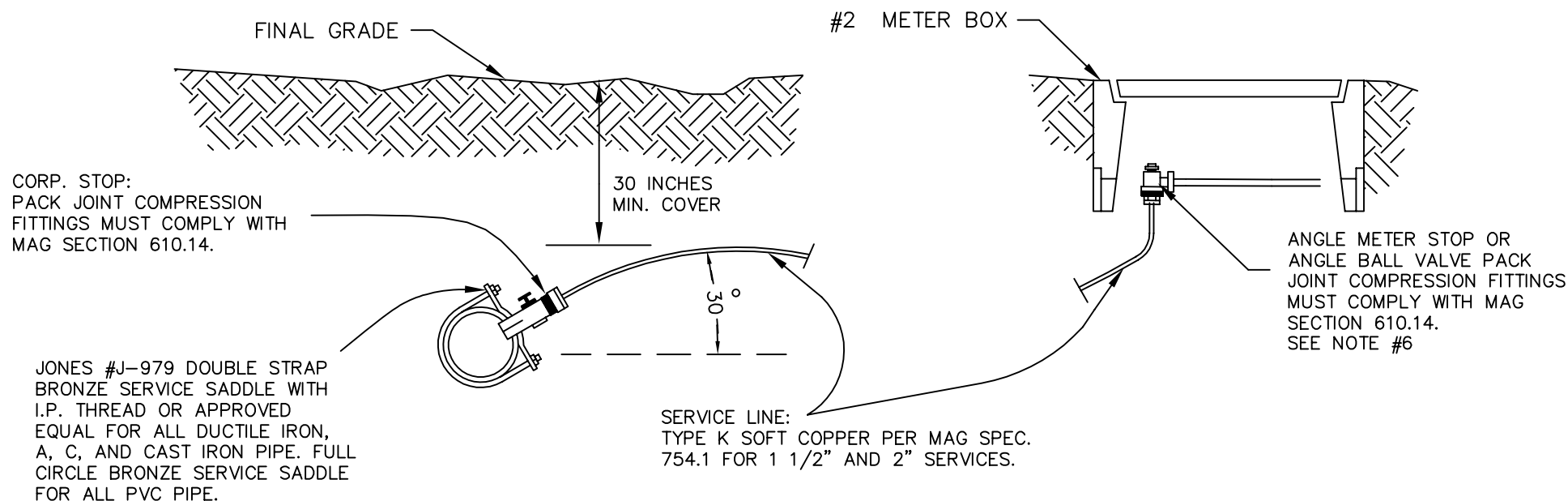
DETAIL NO. **2361** **City of Scottsdale**  
**Standard Details**

APPROVED BY: \_\_\_\_\_

**FIRE HYDRANT BYPASS ASSEMBLY**

DETAIL NO. **2361**



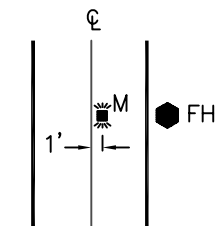


- NOTE:
1. All taps must be made using a service saddle.
  2. All service line sizes shall have the pack joint compression fittings for corp. stops and meter stops.
  3. Where a contractor is installing new water lines, he shall also install the water service connection. The installation shall include the service saddle, corp. stop, service pipe, appurtenant fittings, meter stop, concrete meter box and box cover, per M.A.G. Specifications.
  4. Copper service lines in the 1 1/2", and 2" sizes that cross streets will be one continuous piece. Only with the express written consent of Water & Wastewater Operations will joints be permitted under a road. When this occurs, pack joint fittings will be required; no soldered joints will be permitted.
  5. When all or part of a development is to be served by existing City of Scottsdale water mains, only authorized City of Scottsdale Water and Wastewater Operations personnel shall install the fire service connection.
  6. Fire Department Identification Tag is required. Water resistant tag shall be affixed to valve in meter box and shall state: "DO NOT CLOSE! Fire Sprinkler Supply Line".

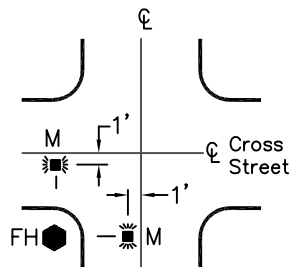
DETAIL NO.  
**2362** **City of Scottsdale**  
**Standard Details**

# 1 1/2" - 2" FIRE LINE CONNECTION

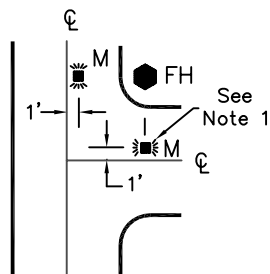
DETAIL NO.  
**2362**



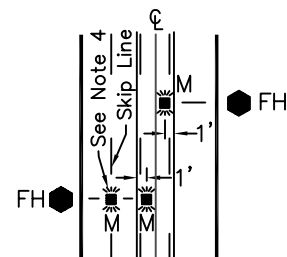
**Midblock  
Local**



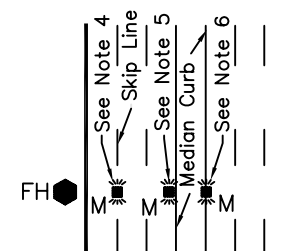
**Local Cross  
Intersection**



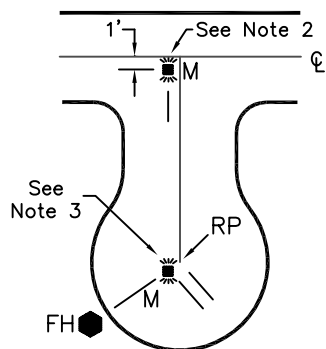
**Local T  
Intersection**



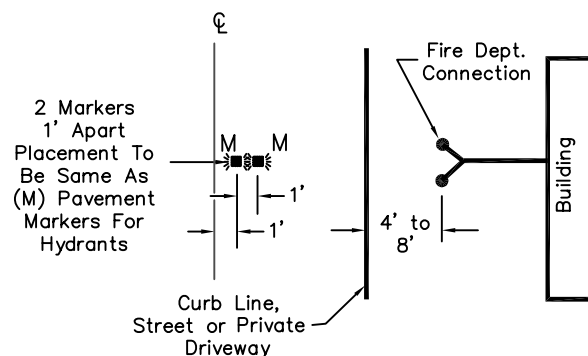
**Midblock  
WITH CENTER LANE  
OR SKIP LINES**



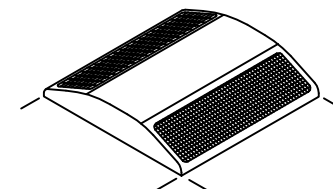
**Midblock  
WITH RAISED  
MEDIAN**



**Cul-De-Sac  
Street**



**Fire Dept. Connection**



**(M) Pavement Marker**  
(2-WAY REFLECTIVE BLUE)

**NOTES:**

1. Not Required on Dead End Streets Without Hydrants
2. Place on Hydrant Side of Centerline.
3. Not Required When Cul-De-Sac is Less Than 250'.
4. To Be Placed in Line With Skip Line.
5. Place on Gutter or Adjacent To Curb.
6. Place on Top of Curb. (This Location Optional)
7. Pavement Markers Shall Not Be Placed Within One Foot of A Paint Line (Center to Center).

DETAIL NO.  
**2363**

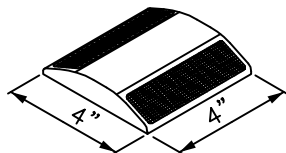
**City of Scottsdale  
Standard Details**

APPROVED BY:

**PAVEMENT MARKERS FOR FIRE HYDRANTS**

DETAIL NO.  
**2363**

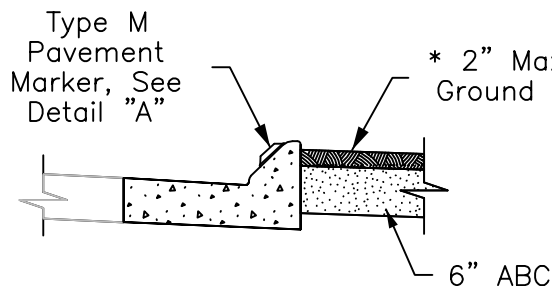
REVISED 3/17/99



Type M Pavement Marker  
(2-WAY REFLECTIVE BLUE)

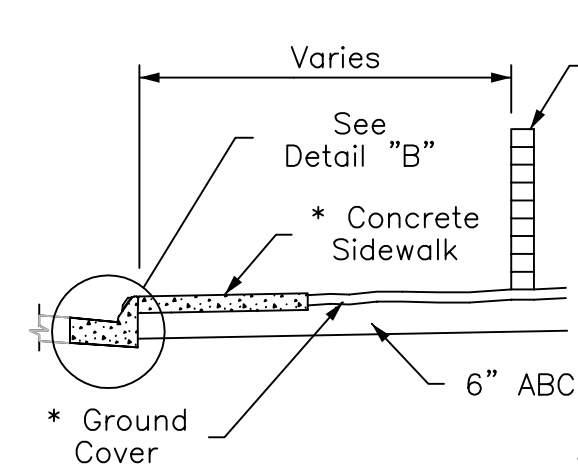
**DETAIL 'A'**

\* NOTE:  
Sidewalk And/Or 2"  
Max. Ground Cover  
Over Min. 6" ABC

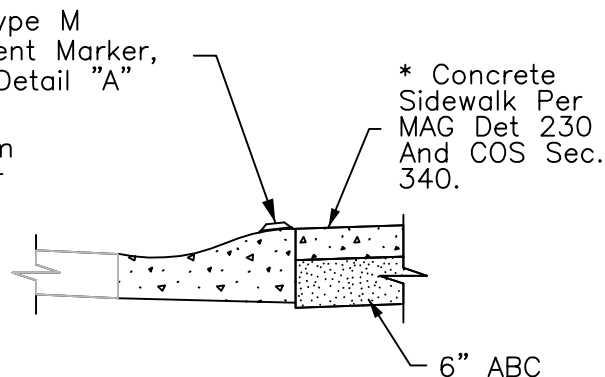


**TYPE 'M' MOUNTABLE  
CURB AND GUTTER**

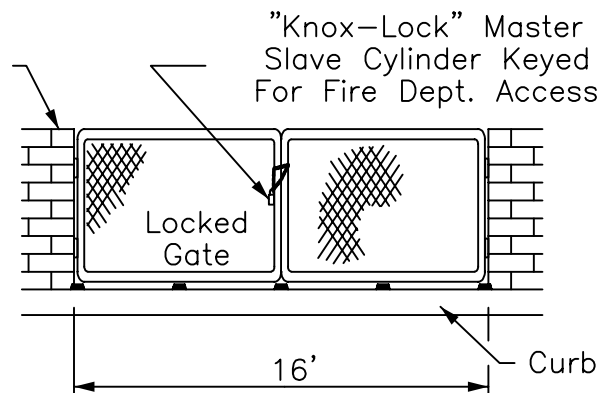
**DETAIL 'B'**



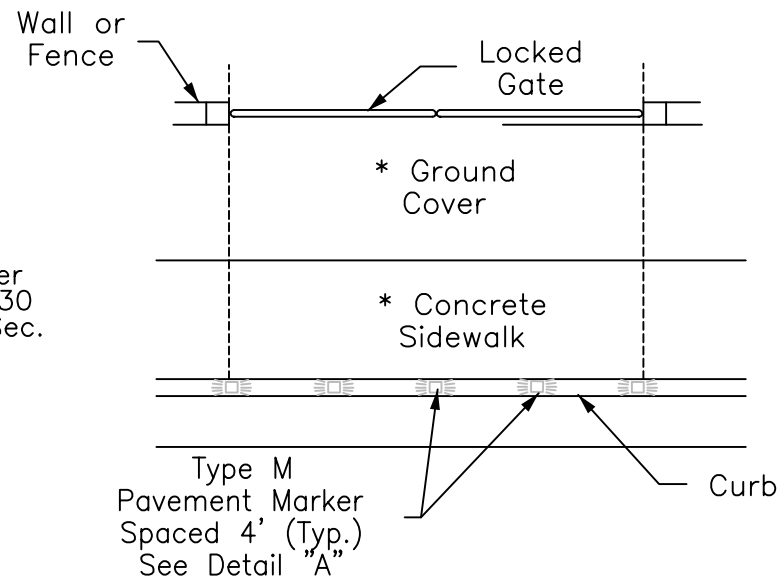
**SIDE VIEW**



**ROLL CURB**



**FRONT VIEW**



**TOP VIEW**

DETAIL NO.  
**2364**

**City of Scottsdale  
Standard Details**

APPROVED BY:

**FIRE AND EMERGENCY ACCESS AND DELINEATION**

DETAIL NO.  
**2364**

NOTES:

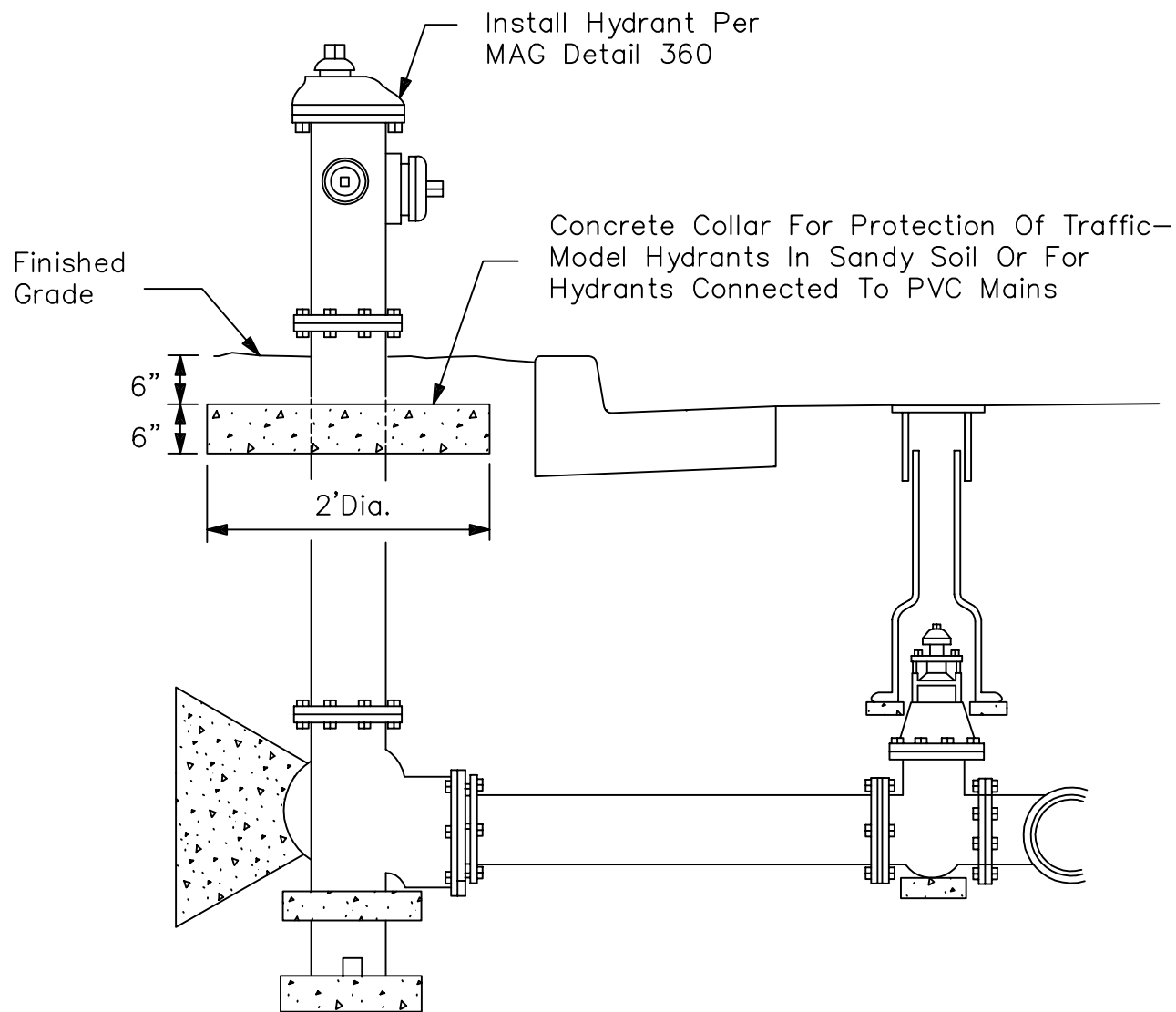
1. At the beginning and end of the fire lane, the sign shall have a single headed arrow pointing in the direction the regulation is in effect. The intermediate signs shall have double headed arrows pointing in both directions.
2. The maximum spacing of the signs shall be 100', contingent upon Traffic Engineering's review and approval.
3. The signs shall be set at an angle of not less than 30° nor more than 45° with the curb or line of traffic flow
4. The clearance to the bottom of the sign shall be 7 feet. There shall be no other signs attached to the sign or the sign pole.
5. The sign plate shall be a minimum of 12" x 18" with a thickness of 0.80".
6. The sign face shall have a white, ASTM Type II (super engineering grade) reflective background with a red reflective legend. Use the standard sign face number R7-32 or equivalent incorporating additional information to complete the sign as shown above.

DETAIL NO.  
**2365**

**City of Scottsdale**  
**Standard Details**

## **FIRE LANE SIGN**

DETAIL NO.  
**2365**



AIR RELEASE AND SHUT-OFF VALVE (REQUIRED ON ALL LINES UNLESS OTHERWISE APPROVED BY WATER RESOURCES DEPARTMENT).

DUCTILE IRON PIPE. PIPE SHALL COMPLY WITH MAG SPEC'S, SECTION 750 AND SHALL HAVE POLYETHYLENE WRAP CORROSION PROTECTION PER MAG SECTION 610.5

AIR RELEASE AND SHUT-OFF VALVE (REQUIRED ON ALL LINES UNLESS OTHERWISE APPROVED BY WATER RESOURCES DEPARTMENT).

FINISH GRADE

RESILIENT WEDGE GATE VALVE

RESILIENT WEDGE GATE VALVE

3' MIN. FOR < 12" DIA.  
4' MIN. FOR 12" DIA. OR LARGER

ARV

CULVERT/STORM DRAIN OR LINED CHANNEL

1' MIN. CLEAR

ADAPTOR, AS REQ'D

RESTRAINED LENGTH  
PER PLAN OR MAG DET.  
303-1&2 (TYP)

ARV

ADAPTOR, AS REQ'D

ARV

45° BEND

24" MIN. SEPARATION

45° BEND

WATER LINE

**NOTES:**

1. THIS DETAIL PROVIDES SEPARATION & COVER REQUIREMENTS ONLY.
2. RESTRAINED JOINTS SHALL BE USED ON ALL BENDS AND FOR THE APPROPRIATE RESTRAINT LENGTH OF PIPE PER THE MANUFACTURERS SPECIFICATION.

DETAIL NO.

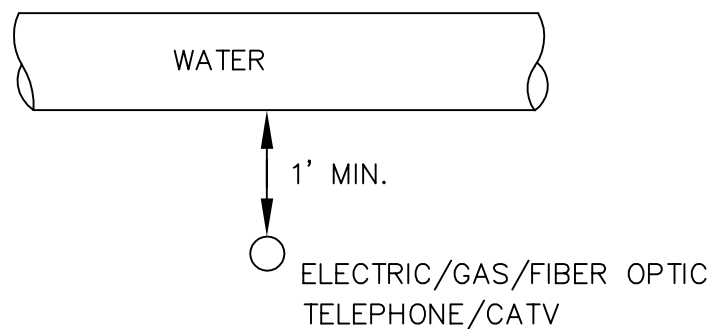
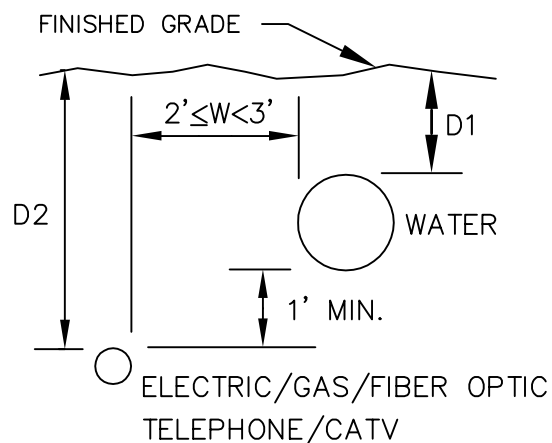
**2370**

**City of Scottsdale  
Standard Details**

# **VERTICAL REALIGNMENT OF WATER MAINS**

DETAIL NO.

**2370**



CROSSING

LEGEND

- D1 = 3' Min. for pipe < 12" dia  
 D1 = 4' Min. for pipe ≥ 12" dia  
 D2 = Minimum Cover  
 W = Horizontal Separation

NOTES

1. Electric separation requirements are for primary electric conductors only. For service conductors see plans.
2. Primary electric, gas, telephone, cable TV or fiber optic lines shall not cross above a water line without written approval from the City's Water Resources Department. If this approval is obtained, a utility locator strip and ABC slurry conforming to COS Specifications Sec. 601.3.6 are required.

